



R 940 Litronic

LIEBHERR

Demolition excavator

Generation

6

Engine

200 kW / 272 HP
Stage V
Tier 4 Final
Non-regulated only
for select markets

Operating weight

48,700–67,100 kg

Working height

25.50 m
H/2: 22.50 m

Technical data



Engine

Rating per ISO 9249	200 kW (272 HP) at 1,800 RPM
Torque	1,400 Nm at 1,100 RPM
Model	Liebherr D944 A7-25 (Stage V) or Liebherr D944 A7-24 (Tier 4 Final) or Liebherr D944 A7-20 (non-regulated only for select markets)
Type	4 cylinder in-line
Bore	130 mm
Stroke	150 mm
Displacement	7.964 l
Engine operation	4-stroke diesel Common-Rail, monoturbo
Exhaust gas treatment	DOC + SCR Filter (Stage V) or SCR (Tier 4 Final) or without EGR (non-regulated only for select markets)
Cooling system	Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	770 l
Urea tank	90 l
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah / 12 V
Starter	24 V / 7.8 kW
Alternator	Three-phase current 28 V / 140 A
Engine idling	Sensor controlled
Motor management	Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



Hydraulic controls

Power distribution	Via control valves in single block with integrated safety valves
Flow summation	To boom and stick
Closed-loop circuit	For uppercarriage swing drive
Servo circuit	
Equipment and swing	Proportional via joystick levers
Travel	– Proportional control via foot pedals or removable levers – Speed pre-selection
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic system

Hydraulic system	Positive Control hydraulic system. Demand-based, double independent pump flows Features high system dynamics and sensitivity provided by integrated system controlling Independent circuit for rotation
Hydraulic pumps	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 315 l/min.
Max. pressure	380 bar
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	205 l/min.
Max. pressure	400 bar
Pump management	Electronic pump management via the integrated system controlling (CAN-BUS) synchronous to the control block
Hydraulic tank	380 l
Hydraulic system	1,100 l with demolition equipment
Filtration	1 full flow filter (10 µm) in return line with integrated fine filter area (5 µm)
Cooling system	Compact cooler, consisting of a water cooler, with hydraulic oil cooler, gearbox oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
MODE selection	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum digging performance and heavy-duty jobs
RPM adjustment	Stepless adjustment of engine output via RPM at each selected mode
Tool Control	20 pre-adjustable pump flows and pressures for add-on attachments
Attachment system	
Flow	315 l/min.
Pressure	380 bar
Attachment rotation system	
Flow	30 l/min.
Pressure	140 bar
Max. pressure	180 bar



Swing drive

Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0–7.5 min ⁻¹ stepless
Swing torque	115.2 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)



Cab

Cab	Safety cab structure, headlight integrated under the protection, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, cigarette lighter and 12V plug, storage bins, lunchbox, cup holder, polycarbonate windows on right side
Operator's seat	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination, seat heating as standard
Arm consoles	Oscillating consoles with seat, tiltable console left
Operation and displays	Large high-resolution colour display with intuitive operation via touchscreen, video, additional colour display for front and side camera, versatile adjusting, control and monitoring facilities, e.g. climate control, implement and attachment parameters, specific demolition display
Air-conditioning	Standard automatic air-conditioning, ambient air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu. Ambient air and fresh air filters can be easily replaced and are accessible from the outside. Heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures
	The air conditioning system contains fluorinated greenhouse gases
Refrigerant	R134a
Global warming potential	1,430
Quantity at 25 °C*	1,260 g
CO ₂ equivalent	1.80 t
Vibration emission**	
Hand / arm vibrations	< 2.5 m/s ² , according with ISO 5349-1:2001
Whole-body vibrations	< 0.5 m/s ²
Measuring inaccuracy	According with standard EN 12096:1997
Noise emission	
ISO 6396	71 dB(A) = L _{PA} (inside cab)
2000/14/EC	105 dB(A) = L _{WA} (surround noise)



Undercarriage

Versions	
VH-HD	Hydraulic variable gauge
LC-V	Mechanical variable gauge
LC / NLC	Standard
Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	2.2 km/h low range 3.1 km/h high range
Drawbar pull on crawler	400 kN (VH-HD) 347 kN (LC-V) 296 kN (LC / NLC)
Track components	D7, D7G, maintenance-free
Track rollers / Carrier rollers	10 / 3 (VH-HD) 10 / 3 (LC-V) 9 / 2 (LC / NLC)
Tracks	Sealed and greased
Track pads	Triple grouser
Holding brake	Wet multi-disc (spring applied, pressure released)



Equipment

Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system

* Valid for standard machine without operator's cab elevation and without height adjustable cab

** For the risk assessment according to 2002/44/EC see ISO/TR 25398:2006

Technical drawing of the Liebherr 940 crawler crane, showing side and rear views with dimension lines labeled A through V.

Equipment 23.00 m with demolition boom 8.30 m and demolition stick 7.30 m

Technical drawing of a Liebherr 940 crawler crane with a demolition boom. The drawing shows a side view and a top view. The side view includes dimensions: T/T1 (boom height), E (boom length), F (boom length), B1 (boom height), B (boom height), D (boom height), G (boom length), H (boom length), U (boom length), V (boom length), and W (boom length). The top view includes dimensions: A1 (boom width), A (boom width), C (boom width), J (boom width), L (boom width), K (boom width), M (boom width), N (boom width), and O (boom width). The crane is yellow and black, with 'LIEBHERR' and '940' visible on the boom.

Technical drawing of a backhoe loader with dimensions labeled A through V. The drawing shows the machine from a side profile, highlighting the main boom, bucket, and chassis. Dimensions include overall length (V), main boom length (E, F), bucket length (G, H), and various heights and widths (A, B, C, D, J, K, L, M, N, T/T1, U).

Backhoe bucket equipment with main boom 4.30 m and demolition boom extension 2.50 m

The drawing shows a side profile of a yellow backhoe loader. Dimensions are indicated by lines and letters:

- A**: Overall width of the machine.
- A1**: Width of the rear engine compartment.
- B**: Overall height from the ground to the top of the cab.
- B1**: Height from the ground to the top of the rear engine compartment.
- C**: Height from the ground to the top of the rear engine compartment (labeled on the right side view).
- D**: Height from the ground to the top of the rear engine compartment (labeled on the side view).
- E**: Distance from the rear of the machine to the start of the boom extension.
- F**: Distance from the rear of the machine to the end of the boom extension.
- G**: Distance from the rear of the machine to the start of the main boom.
- H**: Distance from the rear of the machine to the end of the main boom.
- J**: Height from the ground to the top of the rear engine compartment (labeled on the right side view).
- K**: Distance from the rear of the machine to the start of the main boom (labeled on the right side view).
- L**: Distance from the rear of the machine to the end of the main boom (labeled on the right side view).
- M**: Distance from the rear of the machine to the end of the main boom (labeled on the right side view).
- N**: Overall width of the machine (labeled on the right side view).
- T**: Height from the ground to the top of the boom.
- U**: Distance from the rear of the machine to the end of the main boom.
- V**: Overall length of the machine.

		VH-HD	mm	LC-V	mm	LC	mm	NLC	mm
A	Uppercarriage width		2,985 ²⁾		2,985 ²⁾		2,985 ²⁾		2,985 ²⁾
A1	Uppercarriage width with catwalks		3,325		3,325		3,325		3,325
B	Uppercarriage height		3,450		3,560		3,405		3,405
B1	Uppercarriage height (handrails folded)		3,190		3,300		3,145		3,145
C	Cab height		3,400		3,510		3,355		3,355
D	Counterweight ground clearance		1,250		1,360		1,205		1,205
E	Rear-end length		3,945		3,945		3,945		3,945
F	Tail swing radius		3,945		3,945		3,945		3,945
G	Wheelbase		4,390		4,400		4,108		4,108
H	Undercarriage length		5,370		5,365		5,030		5,030
I	Undercarriage ground clearance		440		760		535		535
J	Track height		1,140		1,165		1,070		1,070
K	Track gauge		2,380-3,300 ³⁾		2,390-2,890 ³⁾		2,590		2,390
L	Track pad width		600		600		600		600
M	Width over tracks		2,980-3,930 ³⁾		2,990-3,490 ³⁾		3,190		2,990
N	Width over steps		3,090-4,310 ^{1) 3)}		3,240-3,740 ^{1) 3)}		3,180		2,980

¹⁾ width with removable steps

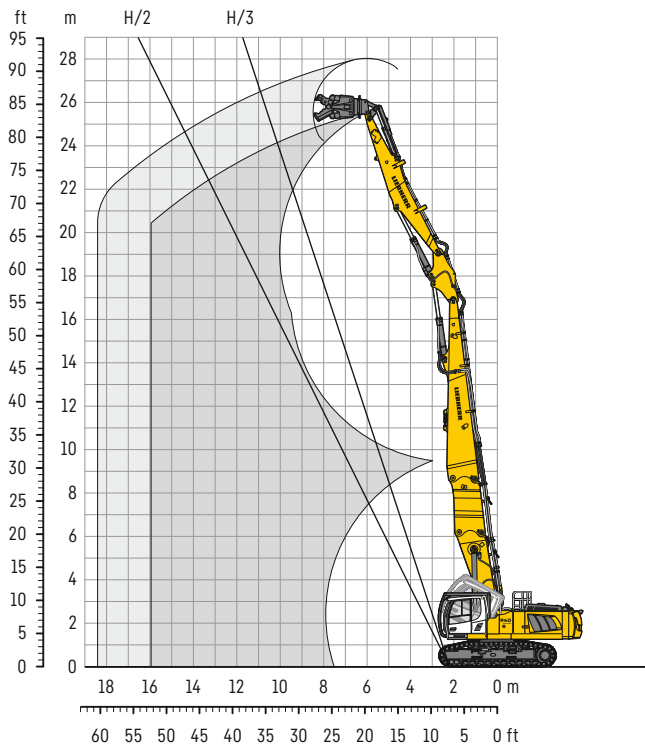
²⁾ without door stop device and spacer

³⁾ work position

		Equipment 25.50 m	Equipment 23.00 m			
		mm	mm			
		VH-HD	VH-HD	LC-V	LC	NLC
T	Boom height	3,200	3,200	3,300	3,150	3,150
T1	Boom height with automatic hydraulic coupling system	–	3,650	3,750	3,600	3,600
U	Length on ground	15,600	13,100	13,050	12,900	12,900
V	Overall length	19,500	16,950	16,950	16,950	16,950

		Stick length	Backhoe bucket equipment				Backhoe bucket equipment with demolition boom extension			
		m	mm				mm			
			VH-HD	LC-V	LC	NLC	VH-HD	LC-V	LC	NLC
T	Boom height	2.50	3,400	3,450	3,400	3,400	3,400	3,450	3,400	3,400
		2.80	3,450	3,500	3,450	3,450	3,450	3,500	3,450	3,450
T1	Boom height with automatic hydraulic coupling system	2.50	3,850	3,900	3,850	3,850	–	–	–	–
		2.80	3,900	3,950	3,900	3,900	–	–	–	–
U	Length on ground	2.50	8,150	8,000	7,800	7,800	10,550	10,400	10,200	10,200
		2.80	7,950	7,800	7,600	7,600	10,750	10,600	10,400	10,400
V	Overall length	2.50	13,400	13,400	13,400	13,400	15,900	15,900	15,900	15,900
		2.80	13,400	13,400	13,400	13,400	15,900	15,900	15,900	15,900

Demolition equipment 25.50 m



Reach limitation

		12 m	14 m	16 m
Demolition boom 8.30 m + Intermediate boom 2.25 m + Demolition stick 7.30 m + Demolition boom extension 2.50 m VH-HD undercarriage		Attachment weight* t		
	lengthwise	2.50	2.00	1.50
	transverse	1.50	-	-

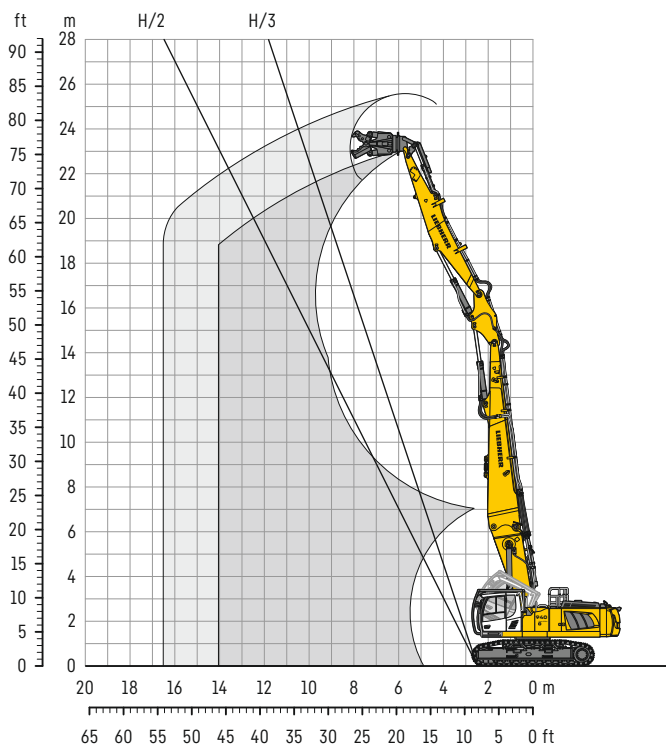
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.0 t, demolition boom 8.30 m, intermediate boom 2.25 m, demolition stick 7.30 m, demolition boom extension 2.50 m and attachment 3.0 t.

Undercarriage		VH-HD
Pad width	mm	600
Weight	kg	67,100
Ground pressure	kg/cm ²	1.18

Demolition equipment 23.00 m



Reach limitation

		10 m	12 m	14 m
Demolition boom 8.30 m + Intermediate boom 2.25 m + Demolition stick 7.30 m VH-HD undercarriage		Attachment weight* t		
	lengthwise	3.00	3.00	3.00
	transverse	3.00	2.75	2.50
LC-V undercarriage	lengthwise	3.00	3.00	2.75
	transverse	3.00	2.25	1.75
LC undercarriage	lengthwise	3.00	3.00	2.75
	transverse	2.00	1.75	-
NLC undercarriage	lengthwise	3.00	3.00	2.50
	transverse	1.50	1.25	-

* included quick coupler, adapter plate and attachment

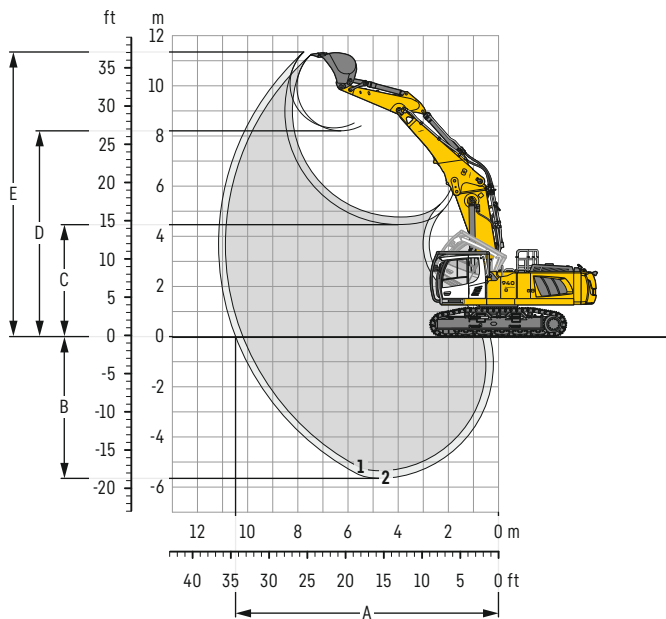
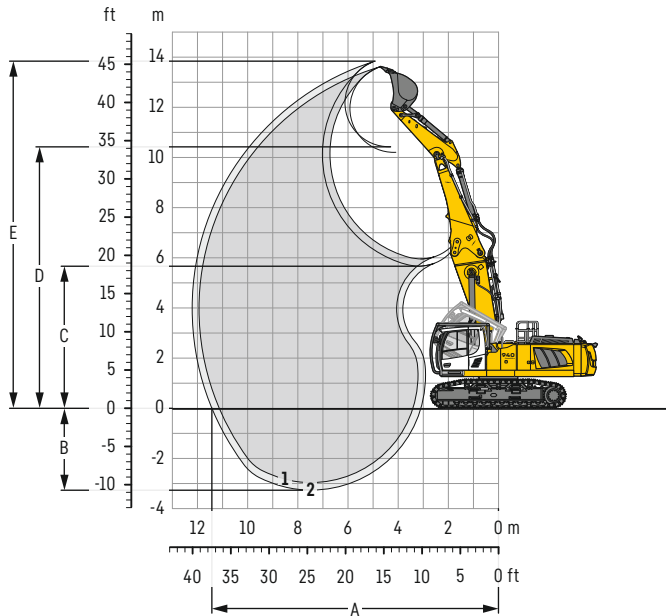
Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.0 t, demolition boom 8.30 m, intermediate boom 2.25 m, demolition stick 7.30 m and attachment 3.0 t.

Undercarriage		VH-HD	LC-V	LC	NLC
Pad width	mm	600	600	600	600
Weight	kg	63,900	59,800	54,700	54,600
Ground pressure	kg/cm ²	1.13	1.05	1.03	1.03

Backhoe bucket

with main boom 4.30 m



Digging envelope

Main boom pinned in upper (in lower) bearing

		1	2
Stick length	m	2.50	2.80
A Max. reach at ground level	m	11.13 (10.19)	11.41 (10.48)
B Max. digging depth	m	2.96 (5.35)	3.26 (5.65)
C Min. dumping height	m	5.95 (4.77)	5.66 (4.47)
D Max. dumping height	m	10.20 (8.21)	10.42 (8.21)
E Max. cutting height	m	13.61 (11.23)	13.84 (11.35)

Forces

		1	2
Stick digging force (ISO 6015)	kN	168	156
Bucket digging force (ISO 6015)	kN	204	204
Stick digging force (SAE J1179)	kN	160	149
Bucket digging force (SAE J1179)	kN	178	178

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.0 t, main boom 4.30 m, stick 2.50 m and bucket 2.00 m³ (1,210 kg).

Undercarriage		VH-HD	LC-V	LC	NLC
Pad width	mm	600	600	600	600
Weight	kg	58,000	53,900	48,800	48,700
Ground pressure	kg/cm ²	1.02	0.95	0.92	0.92

Buckets Machine stability per ISO 10567* (75% of tipping capacity)

Cutting width mm	Capacity ISO 7451 m ³	Weight kg	VH-HD undercarriage (with track pads 600 mm)		LC-V undercarriage (with track pads 600 mm)		LC undercarriage (with track pads 600 mm)		NLC undercarriage (with track pads 600 mm)	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.50	2.80	2.50	2.80	2.50	2.80	2.50	2.80
1,550	1.60	1,110	▲	▲	▲	▲	▲	▲	▲	▲
1,650	1.75	1,160	▲	▲	▲	▲	▲	▲	▲	▲
1,550	1.85	1,170	▲	▲	▲	▲	▲	▲	▲	▲
1,650	2.00	1,210	▲	▲	▲	▲	▲	▲	▲	▲
1,750	2.15	1,260	▲	▲	▲	▲	▲	▲	▲	■

* Indicated loads are based on ISO 10567, at maximum reach, and may be swung 360° on firm and even ground

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³

Lift capacities

with main boom 4.30 m (pinned in upper bearing), counterweight 11.0 t and track pads 600 mm

Stick 2.50 m

Under-carriage	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	Max. reach	
Height							m
12.0						9.5*	6.7
10.5		11.2* 11.2*				8.6*	8.2
9.0		11.2* 11.2*	10.9* 10.9*			8.2*	9.3
7.5	14.5* 14.5*	13.1* 13.1*	12.4* 12.4*	10.0* 10.0*		8.1*	10.0
6.0		17.0* 17.0*	13.8* 13.8*	11.3 11.8*		8.1*	10.4
4.5		17.8* 17.8*	14.2 14.5*	11.0 12.1*		8.4*	10.6
3.0			13.7 14.9*	10.8 12.3*	8.7 9.9*	8.6 8.9*	10.6
1.5			13.4 14.8*	10.6 12.2*	8.7 10.0*	8.8 9.4*	10.4
0		9.7* 9.7*	13.3 14.1*	10.5 11.6*		8.7* 8.7*	9.9
-1.5		14.4* 14.4*	12.6* 12.6*	10.4* 10.4*			
-3.0							
12.0						11.9* 11.9*	6.7
10.5		11.3* 11.3*				8.5* 8.5*	8.2
9.0		11.3* 11.3*	11.0* 11.0*			8.2* 8.2*	9.3
7.5	15.5* 15.5*	13.4* 13.4*	12.4 12.5*	9.3 10.2*		7.7 8.1*	10.0
6.0		16.3 17.1*	11.9 13.8*	9.1 11.9*		7.2 8.2*	10.4
4.5		15.2 16.0*	11.4 14.5*	8.9 12.1*		6.9 8.5*	10.6
3.0			10.9 14.9*	8.6 12.3*	7.0 10.0*	6.9 9.0*	10.6
1.5			10.6 14.8*	8.4 12.2*	6.9 10.0*	7.1 9.4*	10.4
0		10.1* 10.1*	10.5 14.0*	8.3 11.5*		7.6 8.7*	9.9
-1.5		14.3* 14.3*	10.6 12.5*	8.4 10.3*			
-3.0							
12.0						9.6* 9.6*	6.7
10.5		11.2* 11.2*				8.6* 8.6*	8.2
9.0		11.2* 11.2*	10.6 10.9*			7.3 8.2*	9.3
7.5	13.9* 13.9*	13.0* 13.0*	10.4 12.3*	7.7 9.8*		6.4 8.1*	10.0
6.0		13.6 17.0*	9.9 13.8*	7.6 11.5		5.9 8.1*	10.4
4.5		12.5 18.5*	9.4 14.5*	7.3 11.2		5.6 8.4*	10.6
3.0			8.9 14.1	7.1 10.9	5.7 8.8	5.6 8.6	10.6
1.5			8.6 13.7	6.9 10.7	5.7 8.7	5.8 8.9	10.4
0		9.5* 9.5*	8.5 13.6	6.8 10.6		6.2 8.7*	9.9
-1.5		11.6 14.5*	8.6 12.7*	6.8 10.4*			
-3.0							
12.0						9.6* 9.6*	6.7
10.5		11.2* 11.2*				8.4 8.6*	8.2
9.0		11.2* 11.2*	9.9 10.9*			6.8 8.2*	9.3
7.5	13.9* 13.9*	13.0* 13.0*	9.7 12.3*	7.2 9.8*		6.0 8.1*	10.0
6.0		12.6 17.0*	9.2 13.8*	7.0 11.5		5.5 8.1*	10.4
4.5		11.5 18.5*	8.7 14.5*	6.8 11.2		5.2 8.4*	10.6
3.0			8.2 14.0	6.5 10.9	5.3 8.8	5.2 8.6	10.6
1.5			7.9 13.7	6.3 10.7	5.2 8.7	5.3 8.8	10.4
0		9.5* 9.5*	7.8 13.6	6.3 10.6		5.7 8.7*	9.9
-1.5		10.6 14.5*	7.9 12.7*	6.3 10.4*			
-3.0							

Stick 2.80 m

Under-carriage	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	Max. reach	
Height							m
12.0						10.2* 10.2*	4.7
10.5		10.1* 10.1*				8.3* 8.3*	7.1
9.0		9.8* 9.8*	9.9* 9.9*			7.5* 7.5*	8.6
7.5	11.1* 11.1*	11.1* 11.1*	10.9* 10.9*	9.6* 9.6*		7.2* 7.2*	9.6
6.0		16.6* 16.6*	13.5* 13.5*	11.4 11.5*		7.1* 7.1*	10.3
4.5		18.2* 18.2*	14.3* 14.3*	11.1 12.0*		7.2* 7.2*	10.7
3.0			13.7 14.8*	10.8 12.2*	8.8* 8.8*	7.4* 7.4*	10.9
1.5			13.4 14.8*	10.5 12.2*	8.6 10.1*	7.8* 7.8*	10.9
0		10.8* 10.8*	13.2 14.2*	10.4 11.7*	8.6 9.4*	8.5 8.5*	10.6
-1.5		15.1* 15.1*	12.9* 12.9*	10.5 10.6*		8.5* 8.5*	10.2
-3.0			10.8* 10.8*			9.3* 9.3*	8.7
12.0						10.0* 10.0*	4.7
10.5		10.0* 10.0*				8.2* 8.2*	7.1
9.0		9.8* 9.8*	9.9* 9.9*			7.5* 7.5*	8.6
7.5	11.5* 11.5*	11.3* 11.3*	11.0* 11.0*	9.4 9.7*		7.2* 7.2*	9.6
6.0		16.5 16.7*	12.0 13.6*	9.2 11.7*		7.1* 7.1*	10.3
4.5		15.3 18.2*	11.4 14.3*	8.9 12.0*	7.1 9.0*	6.9 7.2*	10.7
3.0			10.9 14.8*	8.6 12.2*	7.0 10.3	6.6 7.4*	10.9
1.5			10.6 14.8*	8.4 12.1*	6.9 10.1*	6.6 7.9*	10.9
0		11.1* 11.1*	10.5 14.1*	8.3 11.6*	6.9 9.3*	6.8 8.6*	10.6
-1.5		14.3 14.9*	10.5 12.8*	8.3 10.5*		7.3 8.5*	10.2
-3.0							8.7
12.0						10.4* 10.4*	4.7
10.5		10.1* 10.1*				8.3* 8.3*	7.1
9.0		9.8* 9.8*	9.9* 9.9*			7.5* 7.5*	8.6
7.5	10.8* 10.8*	11.0* 11.0*	10.5 10.8*	7.8 9.5*		7.0 7.2*	9.6
6.0		13.8 16.6*	10.0 13.5*	7.6 11.4*		6.1 7.1*	10.3
4.5		12.7 18.1*	9.5 14.2*	7.4 11.2	5.8 8.7*	5.7 7.2*	10.7
3.0			9.0 14.1	7.1 10.9	5.7 8.8	5.4 7.4*	10.9
1.5			8.6 13.7	6.9 10.7	5.6 8.7	5.4 7.8*	10.9
0		10.6* 10.6*	8.5 13.5	6.7 10.6	5.6 8.6	5.5 8.5*	10.6
-1.5		11.5 15.2*	8.5 13.0*	6.8 10.6		5.9 8.6*	10.2
-3.0			8.7 10.9*			7.2 9.1*	8.7
12.0						10.4* 10.4*	4.7
10.5		10.1* 10.1*				8.3* 8.3*	7.1
9.0		9.8* 9.8*	9.9* 9.9*			7.5* 7.5*	8.6
7.5	10.8* 10.8*	11.0* 11.0*	9.7 10.8*	7.3 9.5*		6.5 7.2*	9.6
6.0		12.8 16.6*	9.3 13.5*	7.1 11.4*		5.7 7.1*	10.3
4.5		11.6 18.1*	8.7 14.2*	6.8 11.2	5.4 8.7*	5.2 7.2*	10.7
3.0			8.2 14.1	6.5 10.9	5.3 8.8	5.0 7.4*	10.9
1.5			7.9 13.7	6.3 10.7	5.2 8.6	4.9 7.8*	10.9
0		10.4 10.6*	7.8 13.5	6.2 10.5	5.1 8.6	5.1 8.5	10.6
-1.5		10.5 15.2*	7.8 13.0*	6.2 10.5		5.4 8.6*	10.2
-3.0			8.0 10.9*			6.6 9.1*	8.7

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

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 410 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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 safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

Lift capacities

with main boom 4.30 m (pinned in lower bearing), counterweight 11.0 t and track pads 600 mm

Stick 2.50 m

Under-carriage	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	Max. reach	
Height							m
10.5						8.3*	7.3
9.0						8.1*	8.5
7.5		12.9*	12.9*	11.5*	11.5*	8.1*	9.2
6.0	19.5*	19.5*	14.5*	14.5*	12.2*	12.2*	9.7
4.5		16.6*	16.6*	13.2*	13.2*	11.4*	9.9
3.0		18.4*	18.4*	14.2*	14.2*	11.1*	9.9
1.5		16.4*	16.4*	13.8*	14.8*	10.9*	9.7
0		18.4*	18.9*	13.6*	15.0*	10.7*	9.1
-1.5	12.0*	12.0*	18.0*	18.0*	13.5*	14.5*	8.3
-3.0		16.2*	16.2*	13.2*	13.2*		
-4.5							
LC-V						8.3*	7.3
10.5						8.1*	8.5
9.0						8.1*	9.2
7.5		13.0*	13.0*	11.5*	11.5*	8.2*	9.7
6.0	19.8*	19.8*	14.6*	14.6*	12.3*	12.3*	9.9
4.5		16.2*	16.7*	11.9*	13.3*	9.2*	9.9
3.0		15.1*	18.4*	11.4*	14.2*	8.9*	9.7
1.5		14.6*	16.4*	11.0*	14.9*	8.7*	9.1
0		14.5*	18.8*	10.8*	15.0*	8.5*	8.3
-1.5	12.5*	12.5*	14.5*	17.9*	10.7*	14.5*	
-3.0		14.7*	16.1*	10.9*	13.0*		
-4.5							
LC						8.3*	7.3
10.5						8.1*	8.5
9.0						7.6*	9.2
7.5		12.9*	12.9*	10.9*	11.5*	6.8*	9.7
6.0	19.3*	19.3*	14.5*	14.5*	10.5*	12.2*	9.9
4.5		13.4*	16.5*	10.0*	13.2*	7.7*	9.9
3.0		12.4*	18.3*	9.4*	14.2*	7.4*	9.7
1.5		11.9*	16.4*	9.0*	14.2*	7.2*	9.1
0		11.7*	18.9*	8.8*	13.9*	7.0*	8.3
-1.5	11.7*	11.7*	11.7*	18.0*	8.7*	13.8*	
-3.0		11.9*	16.3*	8.9*	13.2*		
-4.5							
NLC						8.3*	7.3
10.5						8.1*	8.5
9.0						7.0*	9.2
7.5		12.9*	12.9*	10.2*	11.5*	6.3*	9.7
6.0	19.3*	19.3*	13.5*	14.5*	9.8*	12.2*	9.9
4.5		12.4*	16.5*	9.3*	13.2*	7.1*	9.7
3.0		11.4*	18.3*	8.7*	14.2*	6.8*	9.9
1.5		10.9*	16.4*	8.3*	14.1*	6.6*	9.7
0		10.7*	18.9*	8.1*	13.9*	6.5*	9.1
-1.5	11.7*	11.7*	10.7*	18.0*	8.0*	13.8*	8.3
-3.0		10.9*	16.3*	8.1*	13.2*		
-4.5							

Stick 2.80 m

Under-carriage	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m	Max. reach	
Height							m
10.5						8.3*	7.3
9.0						8.1*	8.5
7.5			8.2*	8.2*		7.1*	8.8
6.0	18.4*	18.4*	14.0*	14.0*	11.9*	11.9*	9.5
4.5		16.1*	16.1*	12.9*	12.9*	11.2*	10.0
3.0		18.0*	18.0*	13.9*	13.9*	11.1*	10.2
1.5		18.5*	18.5*	13.8*	14.7*	10.8*	10.2
0		18.4*	18.9*	13.6*	14.9*	10.7*	9.9
-1.5	12.0*	12.0*	18.2*	18.2*	13.5*	14.6*	9.4
-3.0	19.9*	19.9*	16.7*	16.7*	13.5*	13.5*	8.6
-4.5							7.1
LC-V						8.4*	7.7
10.5						10.6*	8.8
9.0						11.9*	9.5
7.5		14.1*	14.1*	11.9*	11.9*	9.5	10.0
6.0	18.7*	18.7*	16.2*	16.2*	12.0*	13.0*	10.2
4.5		15.3*	18.0*	11.4*	14.0*	8.9*	10.2
3.0		14.6*	18.5*	11.0*	14.7*	8.7*	9.9
1.5		14.4*	18.9*	10.7*	14.9*	8.5*	9.4
0		14.4*	18.1*	10.7*	14.5*	8.5*	8.6
-1.5	12.4*	12.4*	14.5*	16.5*	10.8*	13.4*	7.1
-3.0	20.1*	20.1*					
-4.5							
LC						8.0*	7.7
10.5						10.5*	8.8
9.0						10.6*	9.5
7.5		14.0*	14.0*	10.6*	11.9*	8.0*	10.0
6.0	18.2*	18.2*	13.6*	16.0*	10.0*	12.9*	10.2
4.5		12.6*	17.9*	9.5*	13.9*	7.4*	10.2
3.0		11.9*	18.5*	9.0*	14.2*	7.1*	9.9
1.5		11.7*	18.9*	8.8*	13.9*	7.0*	9.4
0		11.8*	11.8*	11.6*	18.2*	8.7*	8.6
-1.5	11.8*	11.8*	11.6*	18.2*	8.7*	13.8*	7.1
-3.0	18.0*	19.5*	11.8*	16.7*	8.7*	13.5*	
-4.5							
NLC						8.0*	7.7
10.5						10.3*	8.8
9.0						9.9*	9.5
7.5		18.2*	18.2*	13.7*	14.0*	7.4*	10.0
6.0		12.6*	16.0*	9.3*	12.9*	7.2*	10.2
4.5		11.6*	17.9*	8.8*	13.9*	6.9*	9.9
3.0		10.9*	18.5*	8.3*	14.1*	6.6*	10.2
1.5		10.7*	18.9*	8.1*	13.8*	6.4*	9.7
0		10.6*	18.2*	8.0*	13.7*	6.4*	9.4
-1.5	11.8*	11.8*	10.6*	18.2*	8.0*	13.7*	8.6
-3.0	16.3*	19.5*	10.8*	16.7*	8.0*	13.5*	7.1
-4.5							

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

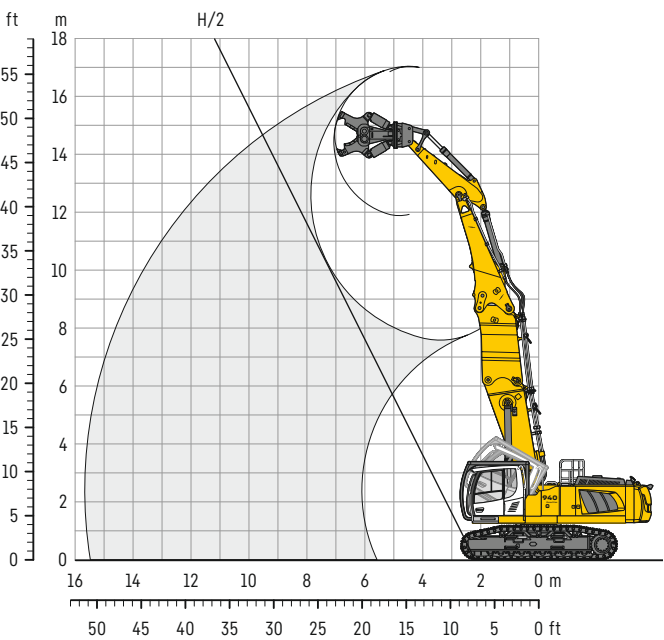
The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 410 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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 safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

Backhoe bucket

with main boom 4.30 m and demolition boom extension 2.50 m



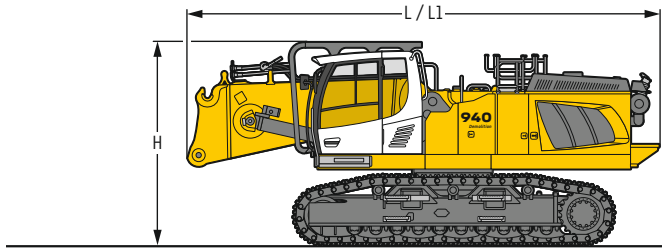
Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11,0 t, main boom 4.30 m, demolition boom extension 2.50 m, stick 2.50 m and attachment* 4.0 t.

Undercarriage	VH-HD	LC-V	LC	NLC
Pad width	600	600	600	600
Weight	63,200	59,100	54,000	53,900
Ground pressure	1.11	1.04	1.01	1.01

* included quick coupler, adapter plate and attachment

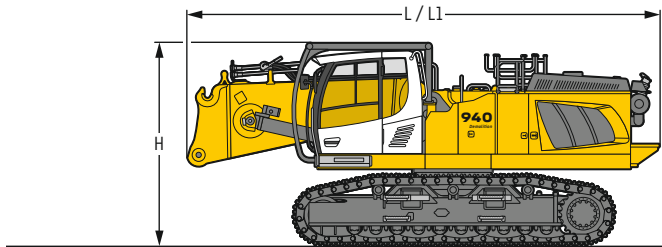
Dimensions and weights



Basic machine

without counterweight with cab tiltable 30° and integral protection grid

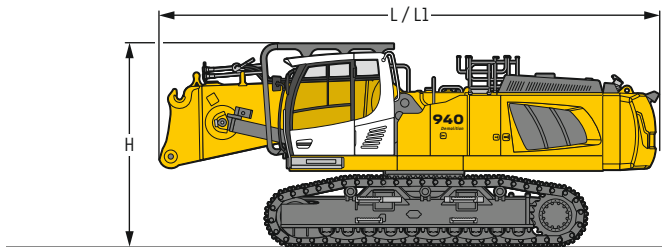
		VH-HD	LC-V	LC	NLC
L	mm	8,000	8,000	8,000	8,000
L1 with automatic hydraulic coupling system	mm	8,250	8,250	8,250	8,250
H	mm	3,400	3,510	3,355	3,355
Weight	kg	40,900	36,800	31,700	31,600
Weight with automatic hydraulic coupling system	kg	41,800	37,700	32,600	32,500



Basic machine

without counterweight with cab tiltable 30° and integral protection grid on tilting device

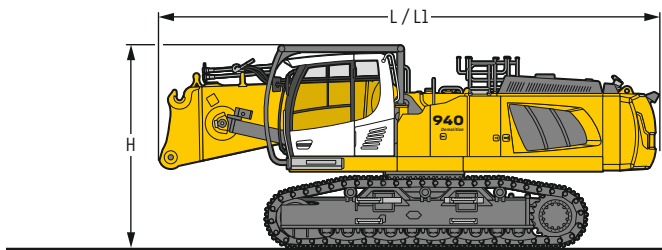
		VH-HD	LC-V	LC	NLC
L	mm	8,000	8,000	8,000	8,000
L1 with automatic hydraulic coupling system	mm	8,250	8,250	8,250	8,250
H	mm	3,400	3,510	3,355	3,355
Weight	kg	41,300	37,200	32,100	32,000
Weight with automatic hydraulic coupling system	kg	42,200	38,100	33,000	32,900



Basic machine

with counterweight 11.0t, cab tiltable 30° and integral protection grid

		VH-HD	LC-V	LC	NLC
L	mm	8,450	8,450	8,450	8,450
L1 with automatic hydraulic coupling system	mm	8,700	8,700	8,700	8,700
H	mm	3,400	3,510	3,355	3,355
Weight	kg	51,900	47,800	42,700	42,600
Weight with automatic hydraulic coupling system	kg	52,800	48,700	43,600	43,500

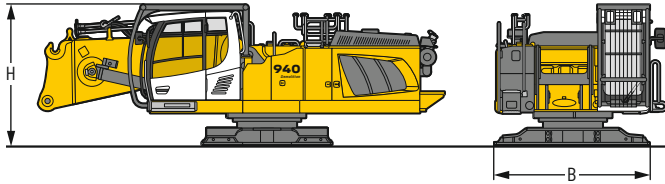


Basic machine

with counterweight 11.0t, cab tiltable 30° and integral protection grid on tilting device

		VH-HD	LC-V	LC	NLC
L	mm	8,450	8,450	8,450	8,450
L1 with automatic hydraulic coupling system	mm	8,700	8,700	8,700	8,700
H	mm	3,400	3,510	3,355	3,355
Weight	kg	52,300	48,200	43,100	43,000
Weight with automatic hydraulic coupling system	kg	53,200	49,100	44,000	43,900

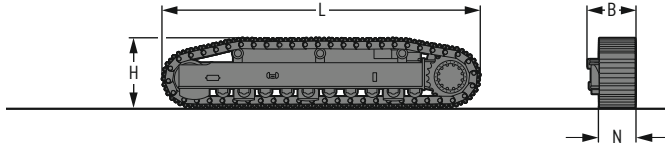
Dimensions and weights



Basic machine

without side frames

B	mm	2,995
H Height	mm	2,750
Weight	kg	24,700
Weight with automatic hydraulic coupling system	kg	25,600



Side frame

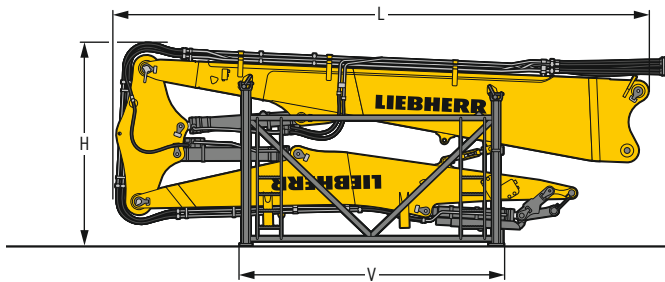
for LC-V undercarriage

L	Length	mm	5,555
H	Height	mm	1,175
N		mm	600
B		mm	795
	Weight	kg	6,250



Counterweight

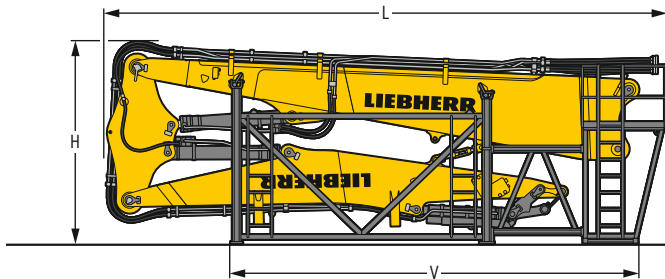
L	Length	mm	940
H	Height	mm	1,420
	Width	mm	2,970
	Weight	kg	11,000



Demolition equipment

with storage rack

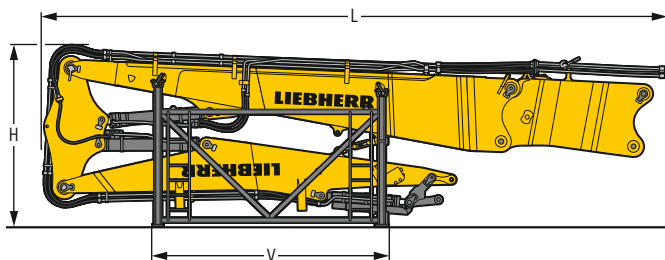
			23,00 m
L	Length	mm	9,050
H	Height	mm	3,400
V		mm	4,450
	Width	mm	2,500
	Weight without attachment	kg	10,100
	Weight with automatic hydraulic coupling system	kg	10,500



Demolition equipment

with storage rack with catwalks

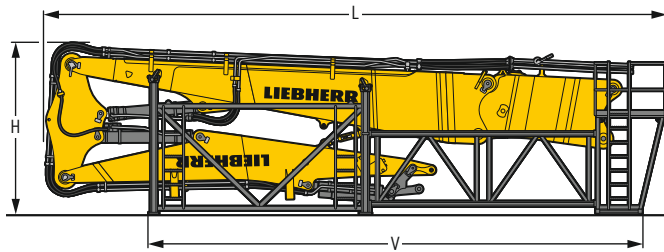
			23.00 m
L	Length	mm	9,500
H	Height	mm	3,400
V		mm	6,900
	Width	mm	2,500
	Weight without attachment	kg	10,900
	Weight with automatic hydraulic coupling system	kg	11,300



Demolition equipment with demolition boom extension

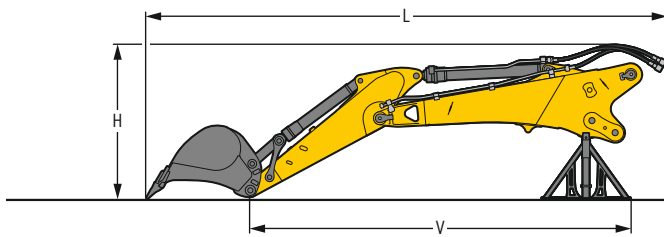
with storage rack

		25.50 m
L	Length	mm 11,600
H	Height	mm 3,400
V		mm 4,445
	Width	mm 2,200
	Weight without attachment	kg 12,700



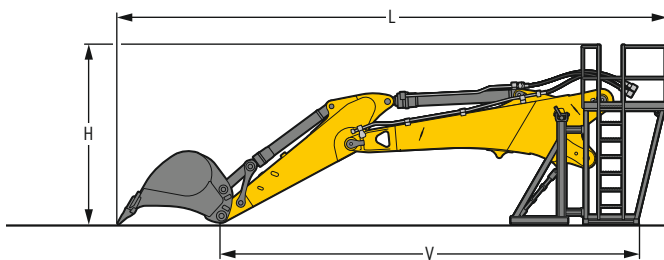
Demolition equipment with demolition boom extension with storage rack with catwalks

		25.50 m
L	Length	mm 12,500
H	Height	mm 3,400
V		mm 9,840
	Width	mm 2,500
	Weight without attachment	kg 13,750



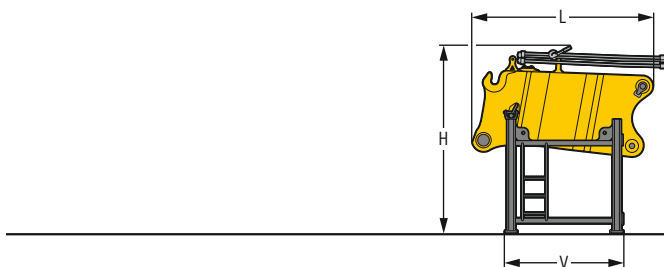
Backhoe equipment with storage rack

	Main boom length	m 4.30
	Stick length	m 2.50 2.80
L	Length	mm 8,800 9,100
H	Height	mm 2,600 2,600
V		mm 6,450 6,750
	Width	mm 2,500 2,500
	Weight without bucket	kg 5,100 5,200
	Weight with automatic hydraulic coupling system	kg 5,500 5,600



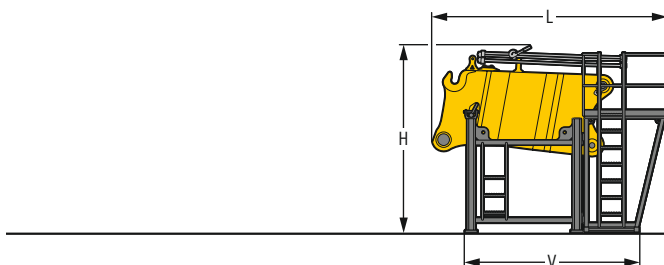
Backhoe equipment with storage rack with catwalks

	Main boom length	m 4.30
	Stick length	m 2.50 2.80
L	Length	mm 9,300 9,600
H	Height	mm 3,020 3,020
V		mm 7,050 7,350
	Width	mm 2,500 2,500
	Weight without bucket	kg 5,700 5,800
	Weight with automatic hydraulic coupling system	kg 6,100 6,200



Demolition boom extension with storage rack

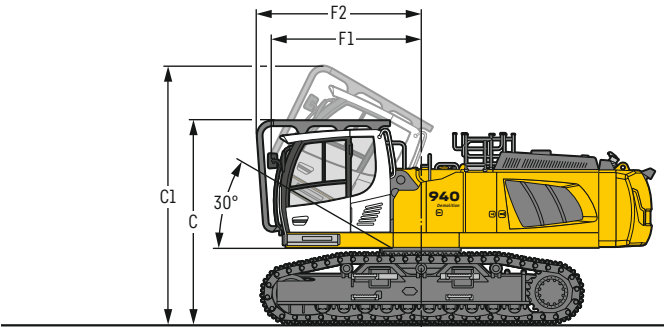
L	Length	mm 3,040
H	Height	mm 3,150
V		mm 1,980
	Width	mm 2,200
	Weight	kg 3,740



Demolition boom extension with storage rack with catwalks

L	Length	mm 3,950
H	Height	mm 3,150
V		mm 2,925
	Width	mm 2,485
	Weight	kg 4,160

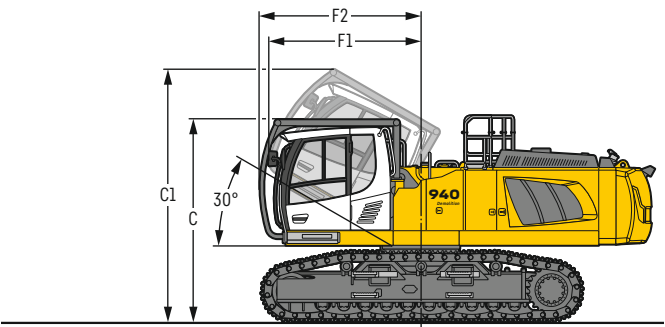
Choice of cab elevations



Version

with cab tiltable 30° and integral protection grid

		VH-HD	LC-V	LC	NLC
C	mm	3,400	3,510	3,365	3,365
C1	mm	4,325	4,435	4,290	4,290
F1	mm	2,530	2,530	2,530	2,530
F2	mm	2,770	2,770	2,770	2,770



Version

with cab tiltable 30° and integral protection grid on tilting device

		VH-HD	LC-V	LC	NLC
C	mm	3,400	3,510	3,355	3,355
C1	mm	4,245	4,355	4,210	4,210
F1	mm	2,570	2,570	2,570	2,570
F2	mm	2,730	2,730	2,730	2,730

Serial equipment

Undercarriage

Lashing eyes
Sprocket with dirt ejector
Track rollers, lifetime-lubricated
Tracks, sealed and greased

Uppercarriage

Anti-skid surfaces
Automatic swing brake lock
Centralised lubrication system (automatic)
Engine hood with gas spring opening
Handrails
Lockable fuel tank cap
Lockable tool box
Sound insulation

Hydraulic system

Filter with integrated fine filters
High pressure circuit with Tool Control and LDC
Hydraulic pressure measuring ports
Medium pressure circuit
Pressure accumulator for controlled lowering of equipment with engine turned off
Shut-off valve between hydraulic tank and pumps

Engine

Air filter with automatic dust ejector
Automatic engine idling / speed increase, controlled via joystick sensors
Common-Rail injection system
Exhaust gas after-treatment system – DOC + SCR
Fixed geometry turbocharger
Fuel pre-filter and water separator
Intercooler
Power Pack EU Stage V
Power Pack non-regulated countries (for select markets)

Cab

9" multifunction colour touchscreen + demolition display for LDC
Air conditioning, automatic, tri-zone, controlled via display
Bottle holder
Cab door sliding windows
Cigarette lighter
Coat hook
DEF level on touchscreen
Emergency stop in cab
Engine oil level on touchscreen
Fuel level on touchscreen
Hydraulic oil level on touchscreen
Impact resistant one-piece windscreen
Impact resistant roof window
Integral front wiper and washer
Integral protection guard
Interior lighting
Left hand side view monitoring camera
LiDAT Plus (Liebherr data transfer system)*
Mechanical hour meter, visible from ground level
Rear view monitoring camera
Rear window emergency exit
Right hand side view monitoring camera
Roll-down sun blinds for windscreen and roof window
Roof wiper and washer
Rubber floor mat, fixed on floor and removable
Storage spaces
Visco-elastic damping
Work mode selector

Equipment

Pipe fracture safety valves for boom cylinders
Standard boom with quick change coupling

* optionally extendable after one year

Equipment standard / option

Undercarriage

Chain guide 1 piece	●
Chain guide 4 pieces	+
Chain guide full length	+
Chain scrapers	+
Special painting	+
Tracks, sealed and greased	●
Undercarriage LC	+
Undercarriage LC-V	+
Undercarriage NLC	+
Undercarriage VH-HD	+

Upper-carriage

Air compressor	+
Boxing ring	+
Catwalks tiltable left and right	+
Electric socket on uppercarriage (24 V)	+
Fogging system	+
Headlight on uppercarriage, front right, LED, 1 piece, protection included	● ¹⁾
Headlight on uppercarriage, front right, LED+, 1 piece, protection included	+ ¹⁾
Headlight on uppercarriage, lateral left, LED+, 1 piece	+ ¹⁾
Headlights on uppercarriage, rear, LED+, 2 pieces	+ ¹⁾
Lighting for tank area	+ ¹⁾
Lighting for uppercarriage access	+ ¹⁾
Radiator fine mesh protection grid	+
Reversible fan drive	+
Rock protection (swing gear and lubrication pipes)	+
Special painting	+
Tank refilling pump fuel	+
Tool set including storage case	●
Transport device for the counterweight	+
Uppercarriage bottom and side protection	+

Hydraulic system

Bypass filter for hydraulic oil	+
Filter for hydraulic hammer return flow	+
High flow	+
Liebherr hydraulic oil	●
Liebherr hydraulic oil, adapted for extreme climate conditions	+
Liebherr hydraulic oil, biodegradable	+
Pre-heating system for hydraulic oil (240V)	+

Engine

Automatic engine shutdown after idling	+
Pre-heating system for fuel, coolant and engine oil (240V)	+

Cab

2" seat belt with retractor	●
3" seat belt with retractor, orange colour	+
4-points seat belt	+
Acoustic travel alarm deactivatable	+
Additional air filtration	+
Air system for roof window cleaning	+
Auxiliary heater programmable	+
Coming / Leaving Home with lighting for cabin access	+
Cool box (12 V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobiliser	+
Fire extinguisher	+
Footrest	+
Headlights on cab, front, LED, 2 pieces	● ¹⁾
Headlights on cab, front, LED+, 2 pieces	+ ¹⁾
Luminosity control (LED+ headlights)	+ ¹⁾
Operator seat Comfort	●
Operator seat Premium	+
Radio Comfort	+
Radio pre-installation	●
Rotating beacon on cabin, LED, 1 piece	+
Sun visor	+

Equipment

Automatic hydraulic coupling system	+
Boom cylinders rod protection	+
Bucket cylinder rod protection for backhoe equipment	+
Camera for equipment	+
Centralised lubrication extended for connecting link for backhoe equipment	+
Fogging system for backhoe equipment	+
Fogging system for demolition equipment	+
Headlight on boom, on each side, LED, 1 piece, protection included	● ¹⁾
Headlight on boom, on each side, LED+, 1 piece, protection included	+ ¹⁾
Headlights on equipment, LED, 4 pieces, protections included	●
Headlights on equipment, LED+, 4 pieces, protections included	+
High pressure circuit for backhoe equipment	+
Medium pressure circuit for backhoe equipment	+
Overload warning system	+
Pipe fracture safety valve for stick cylinder for backhoe equipment	+
Quick coupler for standard boom	+
Quick coupler SWA 66 hydraulic	+
Quick coupler SWA 66 mechanical	+
Solidlink for quick coupler SWA 66 hydraulic	+
Standard boom with multicouplers for demolition boom and backhoe equipment	+
Stick bottom protection	+
Storage rack with catwalks	+
Tool Management	+

● = Standard, + = Option

¹⁾ Equipment not individually available, but only as predefined packages

Non-exhaustive list, please contact us for further information.

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

Liebherr-France SAS

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