
R 950

Litronic

LIEBHERR

Demolition excavator

Generation

6

Operating weight

77,100 kg / 169,980 lb

Engine

295 HP / 220 kW

Tier 4 Final

Working height

29.00 m / 95'2"

H/2: 25.50 m / 83'8"



Technical data



Engine

Rating	
per SAE J1349	295 HP (220 kW) at 1,800 rpm
per ISO 9249	299 HP (220 kW) at 1,800 rpm
Torque	1,450 Nm at 1,100 rpm / 1,069 lbf ft at 1,100 rpm
Model	Liebherr D944 A7-24
Type	4 cylinder in-line
Bore	130 mm / 5.1 in
Stroke	150 mm / 5.9 in
Displacement	7.964 l / 486 in³
Engine operation	4-stroke diesel Common-Rail, monoturbo
Exhaust gas treatment	Tier 4 Final DOC + SCR Filter Passive regeneration by thermo management
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 / 203 gal
Urea tank	90 l / 24 gal
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 305 l/min. / 2 x 81 gpm
Max. pressure	380 bar / 5,511 psi
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	205 l/min. / 54 gpm
Max. pressure	400 bar / 5,802 psi
Pump management	Electronic pump management via the integrated system controlling (CAN-BUS) synchronous to the control block
Hydraulic tank	380 l / 100 gal
Hydraulic system	1,150 l / 304 gal with demolition equipment
Filtration	1 full flow filter (10 µm / 1,250 mesh) in return line with integrated fine filter area (5 µm / 2,500 mesh)
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	305 l/min. / 81 gpm
Pressure	380 bar / 5,511 psi
Attachment rotation system	
Flow	30 l/min. / 8 gpm
Pressure	140 bar / 2,031 psi
Max. pressure	180 bar / 2,611 psi



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	0-5.8 rpm stepless
Swing torque	160 kNm / 118,010 lbf ft
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 wind-screen, 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 color display with intuitive operation via touchscreen, video, additional color 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
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
HD	Standard
Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	2.2 km/h / 1.4 mph low range 3.1 km/h / 1.9 mph high range
Drawbar pull on crawler	488 kN / 109,707 lbf (VH-HD) 457 kN / 102,738 lbf (LC-V/HD)
Track components	D8L, maintenance-free
Track rollers / Carrier rollers	11 / 3 (VH-HD) 10 / 3 (LC-V) 9 / 2 (HD)
Tracks	Sealed and greased
Track pads	Triple grouser
Holding brake	Wet multi-disc (spring applied, pressure released)

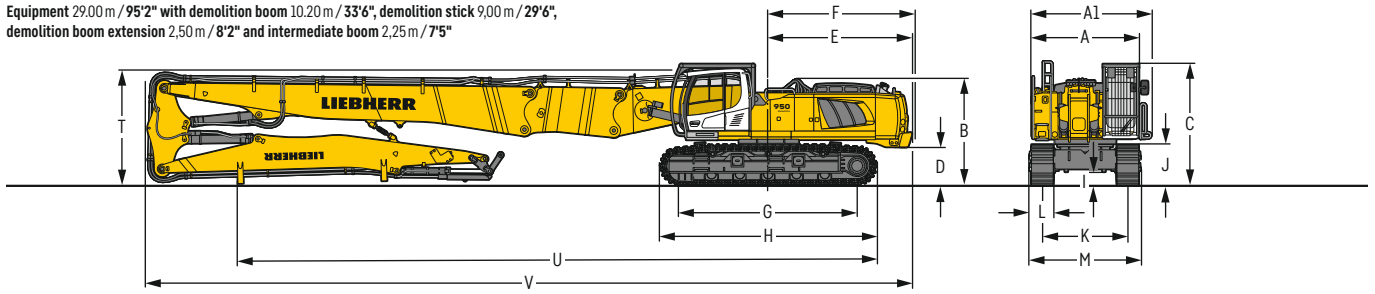


Equipment

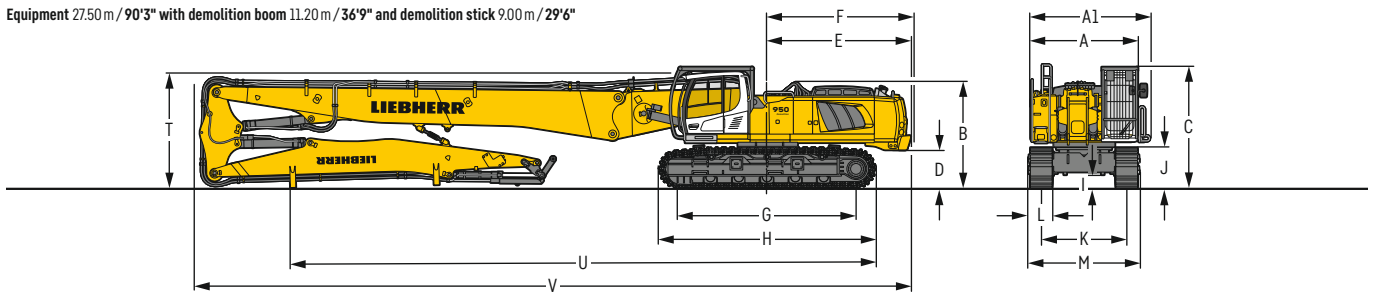
Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with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

Dimensions

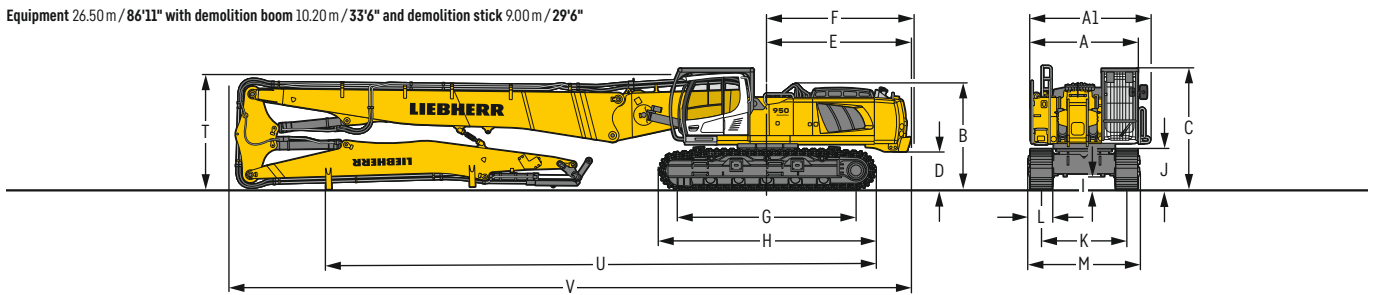
Equipment 29.00 m / 95'2" with demolition boom 10.20 m / 33'6", demolition stick 9.00 m / 29'6", demolition boom extension 2.50 m / 8'2" and intermediate boom 2.25 m / 7'5"



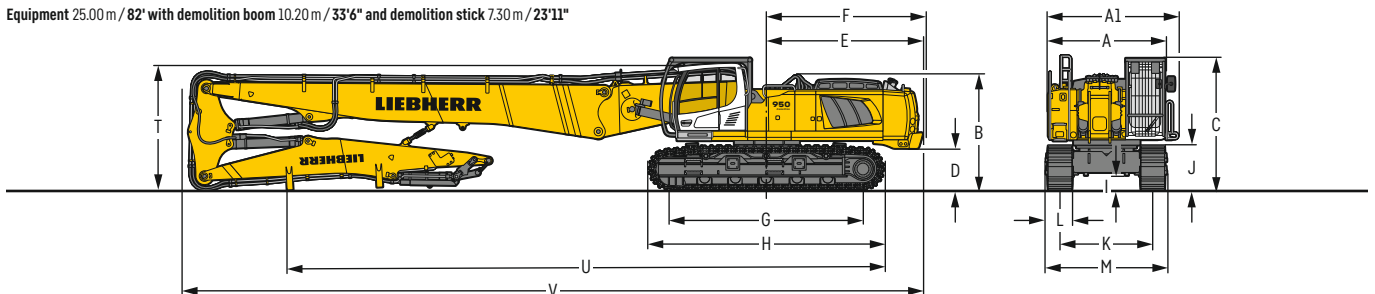
Equipment 27.50 m / 90'3" with demolition boom 11.20 m / 36'9" and demolition stick 9.00 m / 29'6"



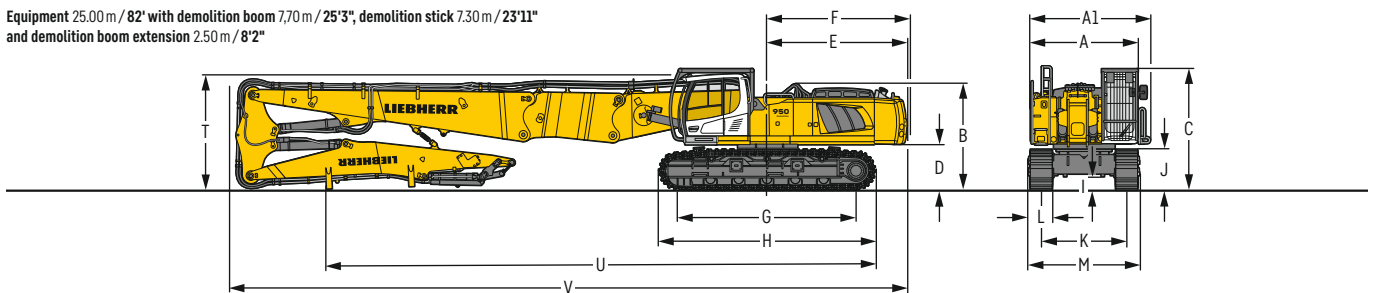
Equipment 26.50 m / 86'11" with demolition boom 10.20 m / 33'6" and demolition stick 9.00 m / 29'6"



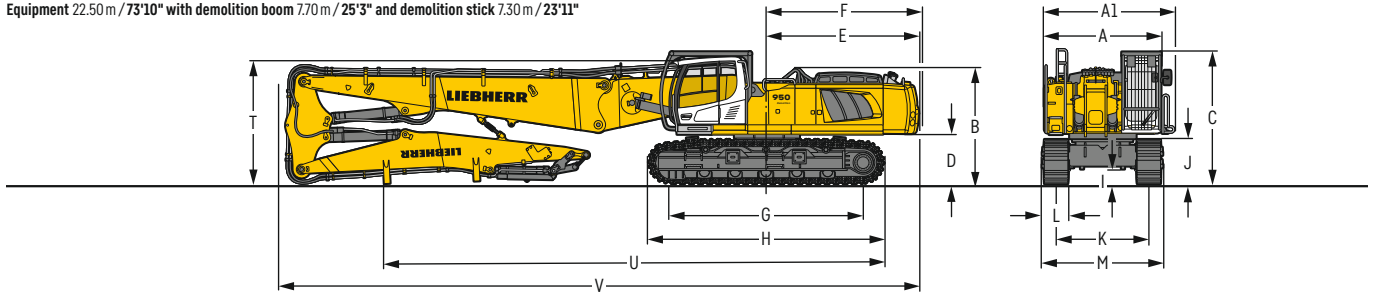
Equipment 25.00 m / 82' with demolition boom 10.20 m / 33'6" and demolition stick 7.30 m / 23'11"



Equipment 25.00 m / 82' with demolition boom 7.70 m / 25'3", demolition stick 7.30 m / 23'11" and demolition boom extension 2.50 m / 8'2"



Equipment 22.50 m / 73'10" with demolition boom 7.70 m / 25'3" and demolition stick 7.30 m / 23'11"



	VH-HD	mm / ft in	LC-V	mm / ft in	HD	mm / ft in
A	Uppercarriage width	2,985 ²⁾ / 9'10" ²⁾		2,985 ²⁾ / 9'10" ²⁾		2,985 ²⁾ / 9'10" ²⁾
A1	Uppercarriage width with catwalks	3,325 / 10'11"		3,325 / 10'11"		3,325 / 10'11"
B	Uppercarriage height	2,970 / 9' 9"		3,180 / 10' 5"		3,075 / 10' 1"
C	Cab height	3,395 / 11' 2"		3,605 / 11'10"		3,500 / 11' 6"
D	Counterweight ground clearance	1,070 / 3' 6"		1,280 / 4' 2"		1,175 / 3'10"
E	Rear-end length	4,015 / 13' 2"		4,015 / 13' 2"		4,015 / 13' 2"
F	Tail swing radius	4,060 / 13' 4"		4,060 / 13' 4"		4,060 / 13' 4"
G	Wheelbase	4,640 / 15' 3"		4,500 / 14' 9"		4,500 / 14' 9"
H	Undercarriage length	5,700 / 18' 8"		5,555 / 18' 3"		5,550 / 18' 3"
I	Undercarriage ground clearance	350 / 1' 2"		800 / 2' 7"		570 / 1'10"
J	Track height	1,135 / 3' 9"		1,175 / 3'10"		1,225 / 4'
K	Track gauge	2,380-3,430 ³⁾ / 7'10"-11' 3" ³⁾		2,390-2,890 ³⁾ / 7'10"- 9' 6" ³⁾		2,900 / 9' 6"
L	Track pad width	600 / 24"		600 / 24"		600 / 24"
M	Width over tracks	3,100-4,150 ³⁾ / 10' 2"-13' 7" ³⁾		2,990-3,490 ³⁾ / 9'10"-11' 5" ³⁾		3,500 / 11' 6"
N	Width over steps	3,370-4,420 ³⁾ / 11' 1"-14' 6" ³⁾		3,200-3,700 ³⁾ / 10' 6"-12' 2" ³⁾		3,715 / 12' 2"

¹⁾ width with removable steps

²⁾ without door stop device and spacer

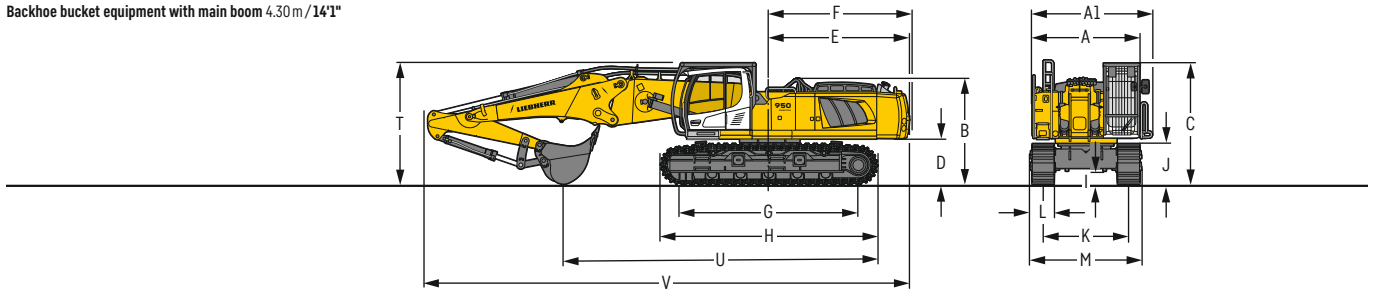
³⁾ work position

	Demolition equipment 29.00 m / 95'2"	Demolition equipment 27.50 m / 90'3"			Demolition equipment 26.50 m / 86'11"		
		VH-HD	LC-V	HD	VH-HD	LC-V	HD
T	Boom height	3,200 20'6"	3,400 11'2"	3,300 10'10"	3,200 20'6"	3,400 11'2"	3,300 10'10"
U	Length on ground	17,450 57'3"	15,050 49'5"	15,100 49'6"	14,950 49'1"	15,000 49'3"	15,000 49'3"
V	Overall length	21,500 70'6"	20,000 65'7"	20,000 65'7"	20,000 65'7"	19,000 62'4"	19,000 62'4"

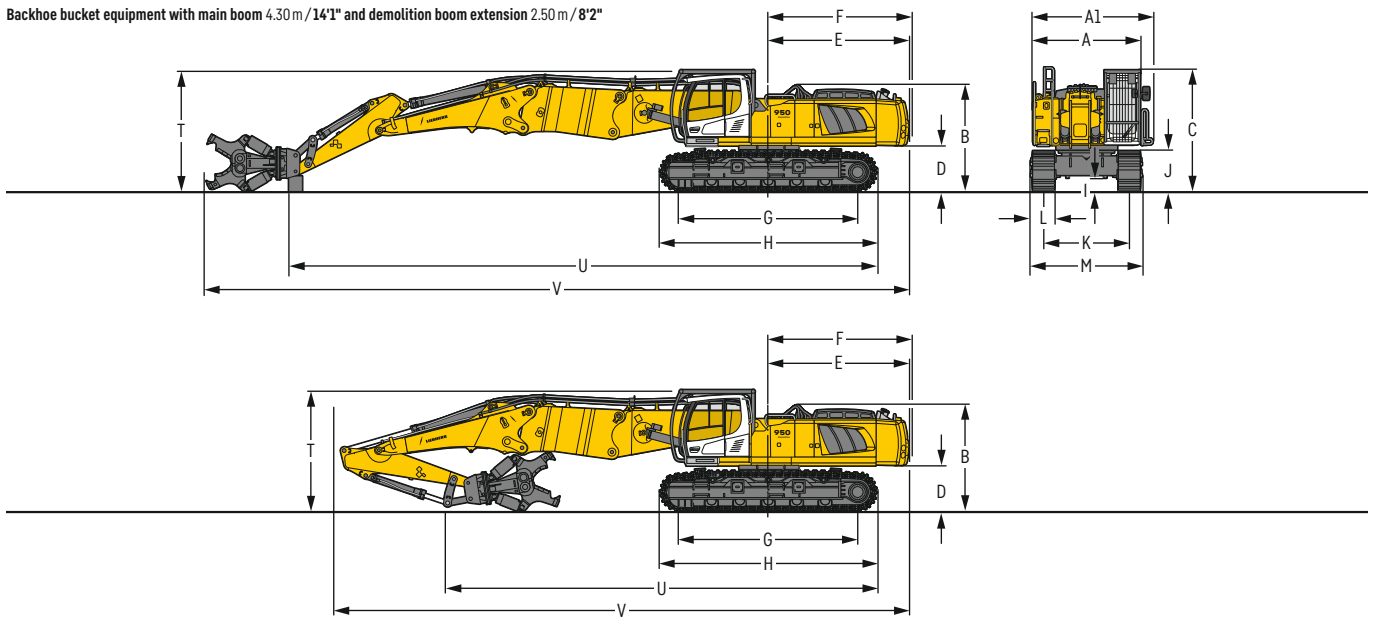
	Demolition equipment 25.00 m / 82' with demolition boom 10.20 m / 33'6"			Demolition equipment 25.00 m / 82' with demolition boom 7.70 m / 25'3"			Demolition equipment 22.50 m / 73'10"			
	VH-HD	LC-V	HD	VH-HD	LC-V	HD	VH-HD	LC-V	HD	
T	Boom height	3,200 20'6"	3,400 11'2"	3,300 10'10"	3,200 20'6"	3,400 11'2"	3,300 10'10"	3,200 20'6"	3,400 11'2"	3,300 10'10"
U	Length on ground	12,450 40'10"	12,500 41'	12,500 41'	14,950 49'1"	15,000 49'3"	15,000 49'3"	12,450 40'10"	12,500 41'	12,500 41'
V	Overall length	19,000 62'4"	19,000 62'4"	19,000 62'4"	18,900 62'	18,900 62'	18,900 62'	16,400 53'10"	16,400 53'10"	16,400 53'10"

Dimensions

Backhoe bucket equipment with main boom 4.30 m / 14'1"

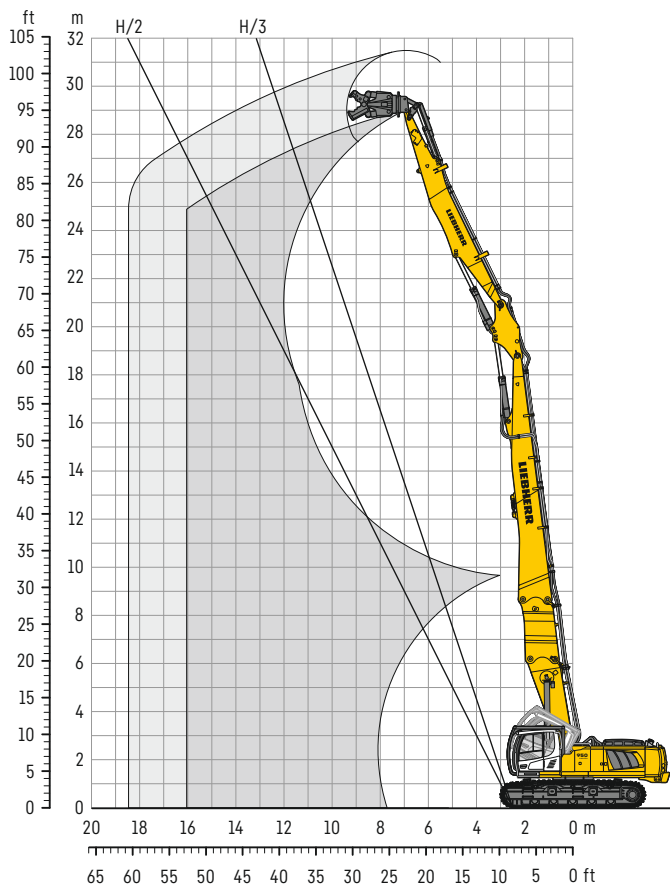


Backhoe bucket equipment with main boom 4.30 m / 14'1" and demolition boom extension 2.50 m / 8'2"



		Stick length m	Backhoe bucket equipment			Backhoe bucket equipment with demolition boom extension		
			VH-HD	LC-V	HD	VH-HD	LC-V	HD
T	Boom height	2.10 / 6'11"	3,400 / 11'2"	3,500 / 11'6"	3,450 / 11' 4"	3,400 / 11'2"	3,500 / 11' 6"	3,450 / 11'4"
		2.60 / 8' 6"	3,450 / 11'4"	3,550 / 11'8"	3,500 / 11' 6"	3,350 / 11'	3,450 / 11' 4"	3,400 / 11'2"
U	Length on ground	2.10 / 6'11"	8,400 / 27'7"	8,450 / 27'9"	8,500 / 27'11"	10,900 / 35'9"	10,950 / 35'11"	11,000 / 36'1"
		2.60 / 8' 6"	7,950 / 26'1"	7,950 / 26'1"	8,050 / 26' 5"	11,650 / 38'3"	11,750 / 38' 7"	11,800 / 38'9"
U1		2.10 / 6'11"	-	-	-	-	-	-
		2.60 / 8' 6"	-	-	-	16,000 / 52'6"	16,150 / 53'	16,200 / 53'2"
V	Overall length	2.10 / 6'11"	13,500 / 44'3"	13,500 / 44'3"	13,500 / 44' 3"	16,000 / 52'6"	16,000 / 52' 6"	16,000 / 52'6"
		2.60 / 8' 6"	13,500 / 44'3"	13,500 / 44'3"	13,500 / 44' 3"	16,000 / 52'6"	11,600 / 38' 1"	16,000 / 52'6"
V1		2.10 / 6'11"	-	-	-	-	-	-
		2.60 / 8' 6"	-	-	-	19,600 / 64'4"	19,600 / 64' 4"	19,600 / 64'4"

Demolition equipment 29.00 m / 95'2"



Reach limitation

	13m	14m	16m	18m
Demolition boom 10.20 m / 33'6"	42'8"	45'11"	52'6"	59'1"
+ Demolition boom extension 2.50 m / 8'2"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 9.00 m / 29'6"				
VH-HD undercarriage				
	Attachment weight*			
	t / lb			
	lengthwise	3.00 / 6,610	3.00 / 6,610	3.00 / 6,610
	transverse	3.00 / 6,610	2.75 / 6,060	2.25 / 4,960
			1.75 / 3,860	

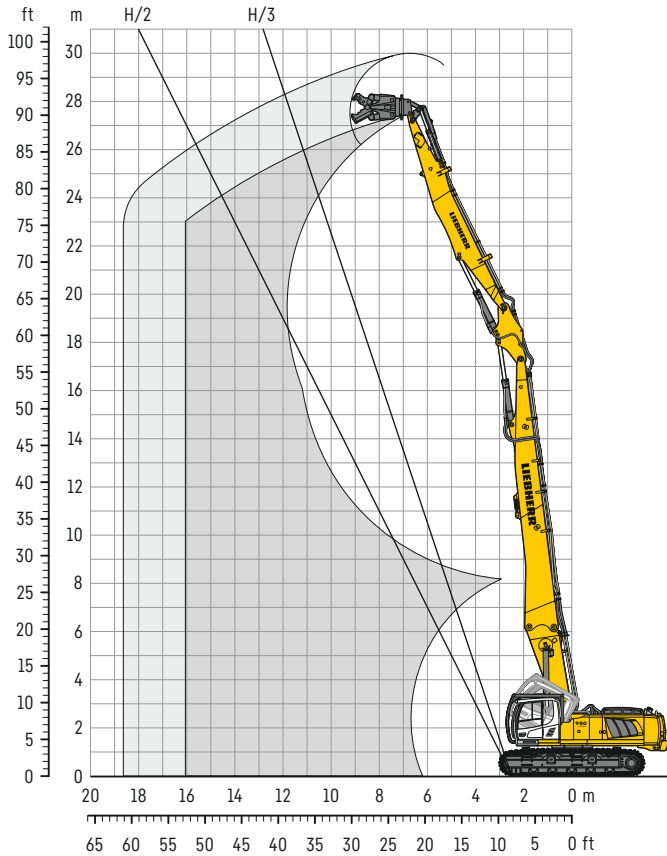
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.1 t / 28,880 lb including 3.9 t / 8,600 lb removable, demolition boom 10.20 m / 33'6", demolition boom extension 2.50 m / 8'2", intermediate boom 2.25 m / 7'5", demolition stick 9.00 m / 29'6" and attachment 3.0 t / 6,610 lb.

Undercarriage	VH-HD	
Pad width	mm / in	600 / 24"
Weight	kg / lb	77,100 / 169,980
Ground pressure	kg/cm ² / psi	1.28 / 18.2

Demolition equipment 27.50 m / 90'3"



Reach limitation

		12 m 39'4"	14 m 45'11"	16 m 52'6"
Demolition boom 11.20 m / 36'9"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 9.00 m / 29'6"				
		Attachment weight*		
		t / lb		
VH-HD undercarriage	lengthwise	3.00 / 6,610	3.00 / 6,610	3.00 / 6,610
	transverse	3.00 / 6,610	3.00 / 6,610	2.25 / 4,960
LC-V undercarriage	lengthwise	3.00 / 6,610	3.00 / 6,610	2.50 / 5,510
	transverse	3.00 / 6,610	2.00 / 4,410	1.50 / 3,310
HD undercarriage	lengthwise	-	-	-
	transverse	-	-	-

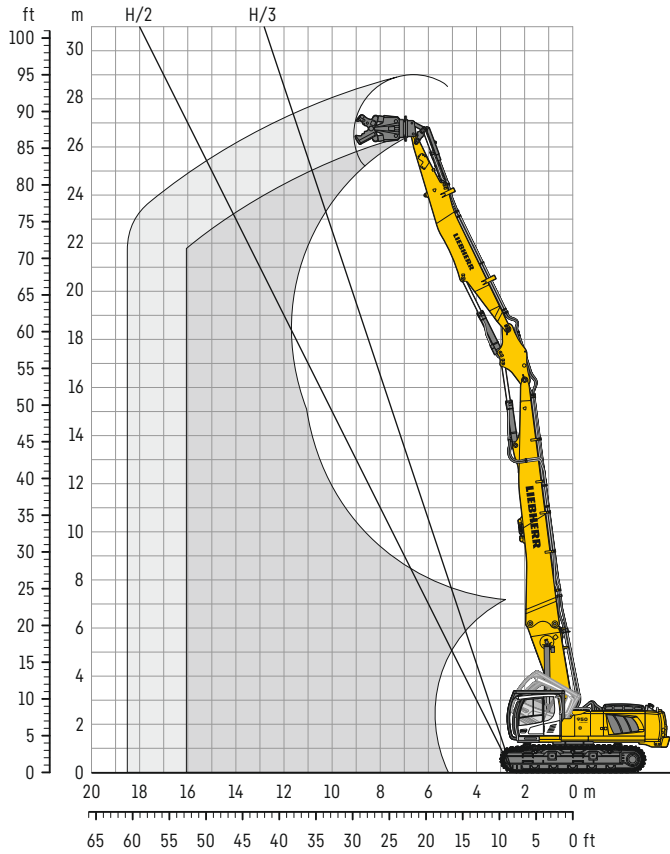
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.1t / 28,880 lb including 3.9t / 8,600 lb removable, demolition boom 11.20 m / 36'9", intermediate boom 2.25 m / 7'5", demolition stick 9.00 m / 29'6" and attachment 3.0t / 6,610 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	75,550 / 166,560	68,050 / 150,030	65,050 / 143,410
Ground pressure	kg/cm ² / psi	1.26 / 17.9	1.16 / 16.5	1.11 / 15.8

Demolition equipment 26.50 m / 86'11"



Reach limitation

		12 m 39'4"	14 m 45'11"	16 m 52'6"
Demolition boom 10.20 m / 33'6"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 9.00 m / 29'6"				
		Attachment weight*		
		t / lb		
VH-HD undercarriage	lengthwise	3.00 / 6,610	3.00 / 6,610	3.00 / 6,610
	transverse	3.00 / 6,610	3.00 / 6,610	2.50 / 5,510
LC-V undercarriage	lengthwise	3.00 / 6,610	3.00 / 6,610	2.50 / 5,510
	transverse	3.00 / 6,610	2.00 / 4,410	1.50 / 3,310
HD undercarriage	lengthwise	3.00 / 6,610	3.00 / 6,610	2.25 / 4,960
	transverse	2.75 / 6,060	2.00 / 4,410	-

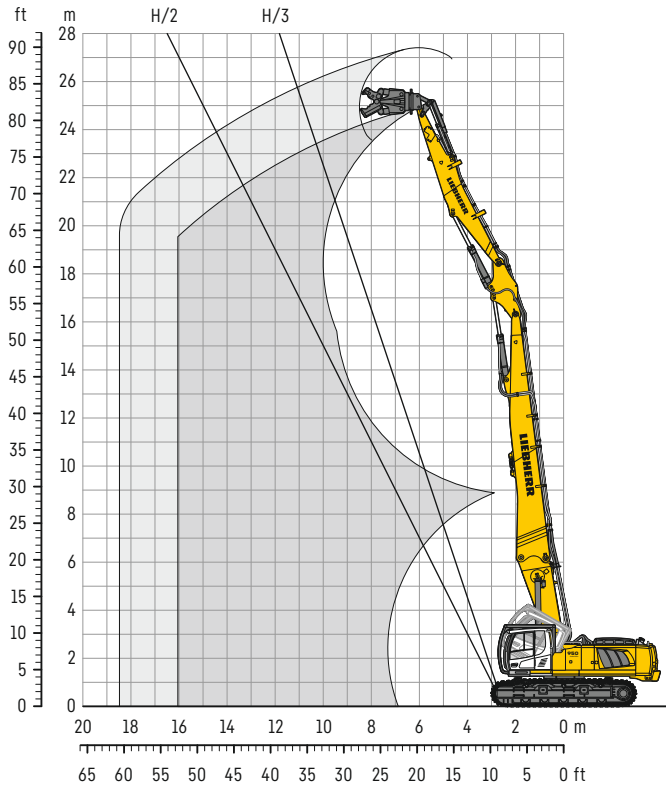
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.1t / 28,880 lb including 3.9t / 8,600 lb removable, demolition boom 10.20 m / 33'6", intermediate boom 2.25 m / 7'5", demolition stick 9.00 m / 29'6" and attachment 3.0t / 6,610 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	73,900 / 162,920	66,400 / 146,390	63,400 / 139,770
Ground pressure	kg/cm ² / psi	1.23 / 17.5	1.14 / 16.2	1.08 / 15.4

Demolition equipment 25.00 m / 82'



Reach limitation

		12 m 39'4"	14 m 45'11"	16 m 52'6"
Demolition boom 10.20 m / 33'6"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 7.30 m / 23'11"				
Attachment weight*				
t / lb				
VH-HD undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	3.50 / 7,720
	transverse	3.50 / 7,720	3.00 / 6,610	2.25 / 4,960
LC-V undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	2.75 / 6,060
	transverse	3.00 / 6,610	2.25 / 4,960	1.50 / 3,310
HD undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	2.75 / 6,060
	transverse	2.75 / 6,060	2.00 / 4,410	1.50 / 3,310

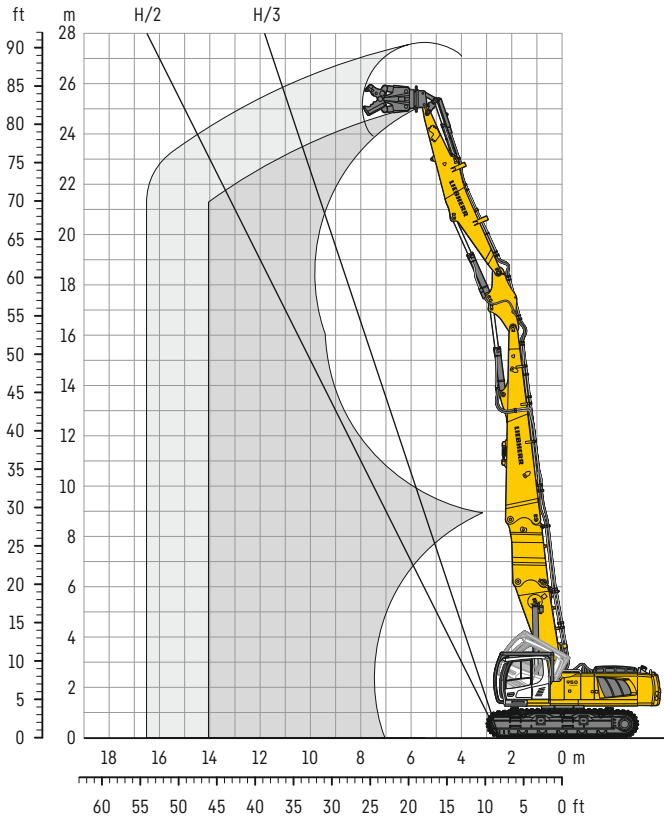
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.1t / 28,880 lb including 3.9t / 8,600 lb removable, demolition boom 10.20 m / 33'6", intermediate boom 2.25 m / 7'5", demolition stick 7.30 m / 23'11" and attachment 3.5t / 7,720 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	74,100 / 163,360	66,600 / 146,830	63,600 / 140,210
Ground pressure	kg/cm ² / psi	1.23 / 17.5	1.14 / 16.2	1.09 / 15.5

Demolition equipment 25.00 m / 82'



Reach limitation

		12 m 39'4"	14 m 45'11"	16 m 52'6"
Demolition boom 7.70 m / 25'3"				
+ Demolition boom extension 2.50 m / 8'2"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 7.30 m / 23'11"				
Attachment weight*				
t / lb				
VH-HD undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	3.25 / 7,170
	transverse	3.50 / 7,720	2.75 / 6,060	2.00 / 4,410
LC-V undercarriage	lengthwise	3.50 / 7,720	3.25 / 7,170	2.25 / 4,960
	transverse	2.25 / 4,960	1.50 / 3,310	-
HD undercarriage	lengthwise	3.50 / 7,720	3.00 / 6,610	2.25 / 4,960
	transverse	2.50 / 5,510	1.75 / 3,860	-

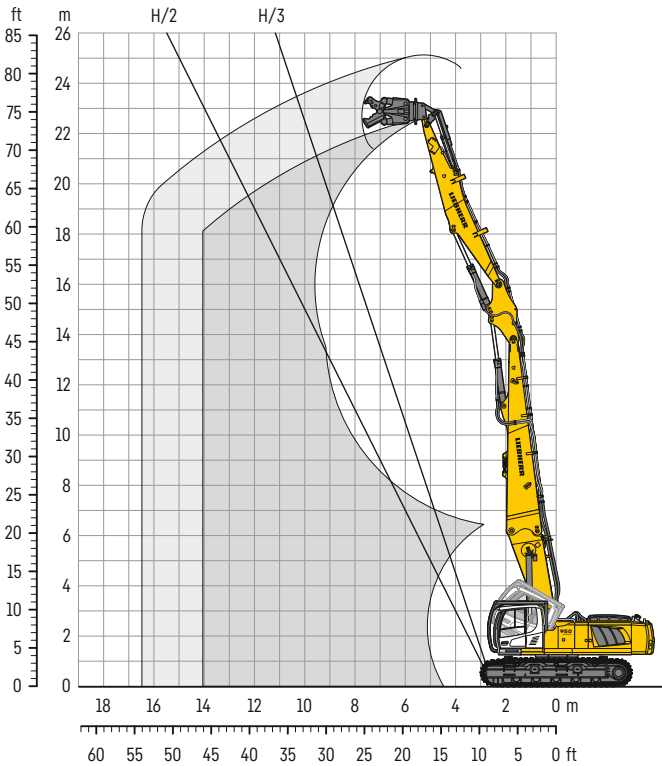
* included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.1t / 28,880 lb including 3.9t / 8,600 lb removable, demolition boom 7.70 m / 25'3", demolition boom extension 2.50 m / 8'2", intermediate boom 2.25 m / 7'5", demolition stick 7.30 m / 23'11" and attachment 3.25t / 7,170 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	75,850 / 167,220	68,350 / 150,690	65,350 / 144,070
Ground pressure	kg/cm ² / psi	1.26 / 17.9	1.17 / 16.6	1.12 / 15.9

Demolition equipment 22.50 m / 73'10"



Reach limitation

		10 m 32'10"	12 m 39'4"	14 m 45'11"
Demolition boom 7.70 m / 25'3"				
+ Intermediate boom 2.25 m / 7'5"				
+ Demolition stick 7.30 m / 23'11"				
		Attachment weight*		
		t / lb		
VH-HD undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	3.50 / 7,720
	transverse	3.50 / 7,720	3.50 / 7,720	2.25 / 4,960
LC-V undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	2.75 / 6,060
	transverse	3.50 / 7,720	2.50 / 5,510	1.50 / 3,310
HD undercarriage	lengthwise	3.50 / 7,720	3.50 / 7,720	2.50 / 5,510
	transverse	3.25 / 7,170	2.50 / 5,510	1.50 / 3,310

* included quick coupler, adapter plate and attachment

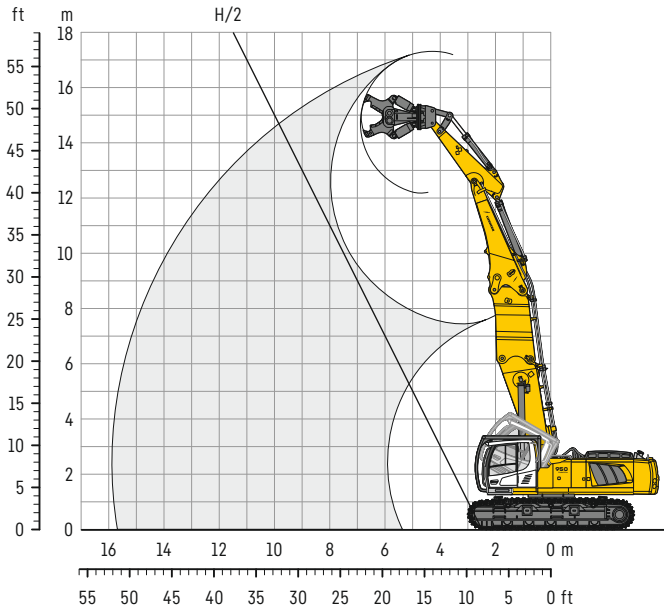
Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 9.2 t / 20,280 lb, demolition boom 7.70 m / 25'3", intermediate boom 2.25 m / 7'5", demolition stick 7.30 m / 23'11" and attachment 3.5 t / 7,720 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	69,300 / 152,780	61,800 / 136,250	58,800 / 129,630
Ground pressure	kg/cm ² / psi	1.15 / 16.4	1.06 / 15.1	1.00 / 14.2

Backhoe bucket

with main boom 4.30 m / 14'1" and demolition boom extension 2.50 m / 8'2"



Operating weight and ground pressure

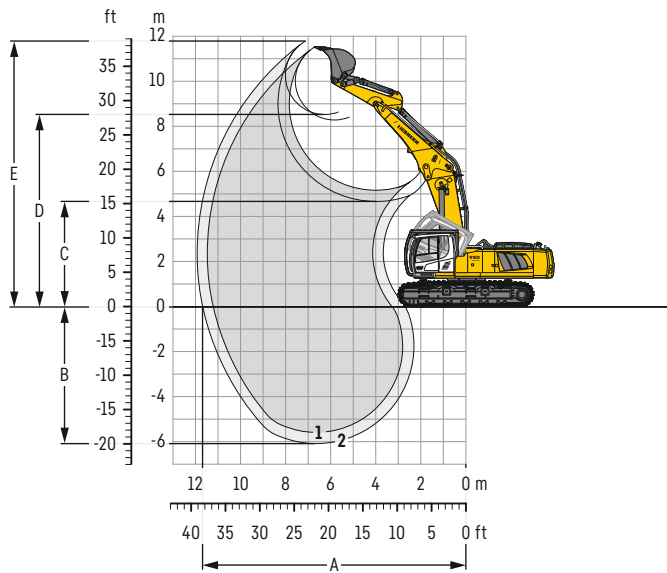
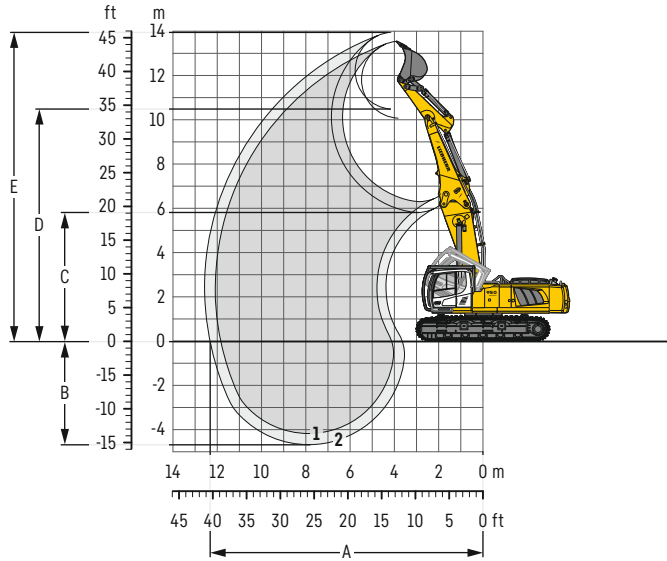
The operating weight includes the basic machine with counterweight 9.2t / 20,280 lb, main boom 4.30 m / 14'1", demolition boom extension 2.50 m / 8'2", HD stick 2.60 m / 8'6" and attachment* 4.5t / 9,920 lb.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	69,925 / 154,160	62,425 / 137,620	59,425 / 131,010
Ground pressure	kg/cm ² / psi	1.16 / 16.5	1.07 / 15.2	1.01 / 14.4

* included quick coupler, adapter plate and attachment

Backhoe bucket

with main boom 4.30 m / 14'1"



Digging envelope

Main boom pinned in upper (in lower) bearing

		1	2
Stick length	m / ft in	2.10 / 6'11"	2.60 / 8'6"
A Max. reach at ground level	m / ft in	11.85 (11.20) / 38'11" (36' 9")	12.35 (11.70) / 40'6" (38' 5")
B Max. digging depth	m / ft in	4.20 (5.60) / 13' 9" (18' 4")	4.70 (6.10) / 15'5" (20')
C Min. dumping height	m / ft in	6.30 (5.15) / 20' 8" (16'11")	5.80 (4.65) / 19' (15' 3")
D Max. dumping height	m / ft in	10.05 (8.30) / 33' (37' 3")	10.50 (8.50) / 34'5" (27'11")
E Max. cutting height	m / ft in	13.55 (11.50) / 44' 5" (37' 9")	13.95 (11.80) / 45'9" (38' 9")

Forces

		1	2
Stick digging force (ISO 6015)	kN / lbf	229 / 51,480	201 / 45,190
Bucket digging force (ISO 6015)	kN / lbf	237 / 53,280	237 / 53,280
Stick digging force (SAE J1179)	kN / lbf	218 / 49,010	193 / 43,390
Bucket digging force (SAE J1179)	kN / lbf	212 / 47,660	212 / 47,660

Max. bucket digging force ISO

300 kN / 67,440 lbf

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 9.2 t / 20,280 lb, main boom 4.30 m / 14'1", HD stick 2.10 m / 6'11" and HD bucket 1.25 m³ / 1.63 yd³ (1,380 kg / 3,040 lb).

Undercarriage		VH-HD	LC-V	HD
Pad width	mm / in	600 / 24"	600 / 24"	600 / 24"
Weight	kg / lb	63,600 / 140,210	56,100 / 123,680	53,100 / 117,070
Ground pressure	kg/cm ² / psi	1.06 / 15.1	0.96 / 13.7	0.91 / 12.9

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

Cutting width	Capacity ISO 7451	Weight	VH-HD undercarriage (with track pads 600 mm / 24")		LC-V undercarriage (with track pads 600 mm / 24")		HD undercarriage (with track pads 600 mm / 24")	
			Stick length (m / ft in)		Stick length (m / ft in)		Stick length (m / ft in)	
			2.10 6'11"	2.60 8'6"	2.10 6'11"	2.60 8'6"	2.10 6'11"	2.60 8'6"
1,350 53"	1.50 1.96	1,470 3,240	▲	▲	▲	▲	▲	▲
1,500 59"	1.75 2.29	1,560 3,440	▲	▲	▲	▲	▲	▲
1,650 65"	2.00 2.62	1,700 3,750	▲	▲	▲	▲	▲	▲
1,650 65"	2.25 2.94	1,820 4,010	▲	▲	▲	▲	▲	■
1,850 73"	2.50 3.27	1,990 4,390	▲	▲	▲	■	■	■

* 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 / 3,400 lb/yd³, ■ = ≤ 1.8 t/m³ / 3,000 lb/yd³, ■ = ≤ 1.5 t/m³ / 2,500 lb/yd³

Lift capacities

with main boom 4.30 m / 14'1" (pinned in upper bearing), counterweight 9.2 t / 20,280 lb and track pads 750 mm / 30"

Stick 2.10 m / 6'11"

Under-carriage	3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft		m ft in
12.0m t													12.1*
40ft lb													12.1*
10.5m t													6.2
35ft lb													19.7
9.0m t													7.9
30ft lb													25.5"
7.5m t													9.0
25ft lb													29.2"
6.0m t													9.7
20ft lb													31.8"
4.5m t													10.1
15ft lb													33.2"
3.0m t													10.3
10ft lb													33.11"
1.5m t													10.3
5ft lb													33.10"
0m t													10.0
0ft lb													33"
-1.5m t													9.5
-5ft lb													31.4"
12.0m t													16.3*
40ft lb													16.3*
10.5m t													6.2
35ft lb													19.8"
9.0m t													7.9
30ft lb													25.5"
7.5m t													9.0
25ft lb													29.2"
6.0m t													9.7
20ft lb													31.8"
4.5m t													10.1
15ft lb													33.2"
3.0m t													10.3
10ft lb													33.11"
1.5m t													10.3
5ft lb													33.10"
0m t													10.0
0ft lb													33"
-1.5m t													9.5
-5ft lb													31.4"

Stick 2.60 m / 8'6"

Under-carriage	3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft		m ft in
12.0m t													12.1*
40ft lb													12.1*
10.5m t													7.0
35ft lb													22.5"
9.0m t													8.5
30ft lb													27.6"
7.5m t													9.5
25ft lb													31"
6.0m t													10.2
20ft lb													33.4"
4.5m t													10.6
15ft lb													34.10"
3.0m t													10.8
10ft lb													35.6"
1.5m t													10.8
5ft lb													35.5"
0m t													10.5
0ft lb													34.7"
-1.5m t													10.1
-5ft lb													33"
12.0m t													11.5*
40ft lb													11.5*
10.5m t													7.0
35ft lb													22.5"
9.0m t													8.5
30ft lb													27.6"
7.5m t													9.5
25ft lb													31"
6.0m t													10.2
20ft lb													33.4"
4.5m t													10.6
15ft lb													34.10"
3.0m t													10.8
10ft lb													35.6"
1.5m t													10.8
5ft lb													35.5"
0m t													10.5
0ft lb													34.7"
-1.5m t													10.1
-5ft lb													33"

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) / lb x 1,000 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 750 mm / 30" 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 615 kg / 1,380 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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 / 14'1" (pinned in lower bearing), counterweight 9.2 t / 20,280 lb and track pads 750 mm / 30"

Stick 2.10 m / 6'11"

Under-carriage	3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft		m ft in
10.5m t													
35ft lb													
9.0m t													
30ft lb													
7.5m t													
25ft lb													
6.0m t													
20ft lb													
4.5m t													
15ft lb													
3.0m t													
10ft lb													
1.5m t													
5ft lb													
0m t													
0ft lb													
-1.5m t													
-5ft lb													
-3.0m t													
-10ft lb													
10.5m t													
35ft lb													
9.0m t													
30ft lb													
7.5m t													
25ft lb													
6.0m t													
20ft lb													
4.5m t													
15ft lb													
3.0m t													
10ft lb													
1.5m t													
5ft lb													
0m t													
0ft lb													
-1.5m t													
-5ft lb													
-3.0m t													
-10ft lb													
10.5m t													
35ft lb													
9.0m t													
30ft lb													
7.5m t													
25ft lb													
6.0m t													
20ft lb													
4.5m t													
15ft lb													
3.0m t													
10ft lb													
1.5m t													
5ft lb													
0m t													
0ft lb													
-1.5m t													
-5ft lb													
-3.0m t													
-10ft lb													

Stick 2.60 m / 8'6"

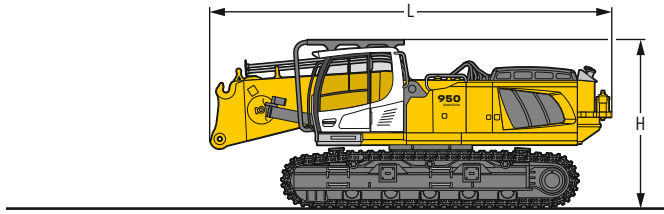
Under-carriage	3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft		m ft in
10.5m t													
35ft lb													
9.0m t													
30ft lb													
7.5m t													
25ft lb													
6.0m t													
20ft lb													
4.5m t													
15ft lb													
3.0m t													
10ft lb													
1.5m t													
5ft lb													
0m t													
0ft lb													
-1.5m t													
-5ft lb													
-3.0m t													
-10ft lb													
10.5m t													
35ft lb													
9.0m t													
30ft lb													
7.5m t													
25ft lb													
6.0m t													
20ft lb													
4.5m t													
15ft lb													
3.0m t													
10ft lb													
1.5m t													
5ft lb													
0m t													
0ft lb													
-1.5m t													
-5ft lb													
-3.0m t													
-10ft lb													

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) / lb x 1,000 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 750 mm / 30" 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 615 kg / 1,380 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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.

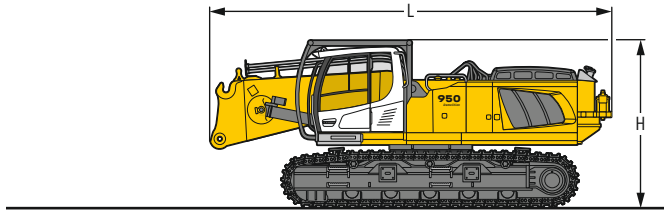
Dimensions and weights



Basic machine

without counterweight with cab tiltable 30° and integral protection grid

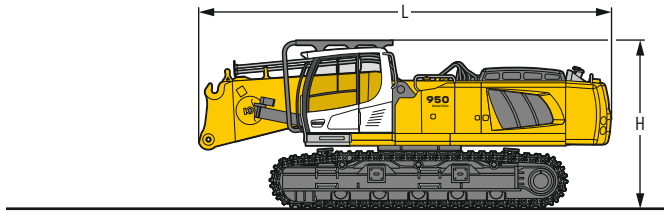
		VH-HD	LC-V	HD
L	mm / ft in	8,150 / 26'9"	8,150 / 26' 9"	8,150 / 26'9"
H	mm / ft in	3,395 / 11'2"	3,605 / 11'10"	3,500 / 11'6"
Weight	kg / lb	48,100 / 106,040	40,600 / 89,510	37,600 / 82,890



Basic machine

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

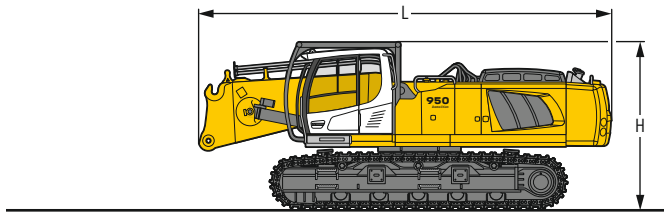
		VH-HD	LC-V	HD
L	mm / ft in	8,150 / 26'9"	8,150 / 26' 9"	8,150 / 26'9"
H	mm / ft in	3,395 / 11'2"	3,605 / 11'10"	3,500 / 11'6"
Weight	kg / lb	48,500 / 106,920	41,000 / 90,390	38,000 / 83,780



Basic machine

with counterweight 921/20,280 lb, cab tiltable 30° and integral protection grid

		VH-HD	LC-V	HD
L	mm / ft in	8,400 / 27'7"	8,400 / 27' 7"	8,400 / 27'7"
H	mm / ft in	3,395 / 11'2"	3,605 / 11'10"	3,500 / 11'6"
Weight	kg / lb	56,000 / 123,460	48,500 / 106,920	45,500 / 100,310

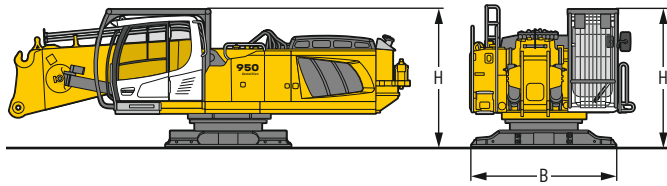


Basic machine

with counterweight 921/20,280 lb, cab tiltable 30° and integral protection grid on tilting device

		VH-HD	LC-V	HD
L	mm / ft in	8,400 / 27'7"	8,400 / 27' 7"	8,400 / 27'7"
H	mm / ft in	3,395 / 11'2"	3,605 / 11'10"	3,500 / 11'6"
Weight	kg / lb	56,400 / 124,340	48,900 / 107,810	45,900 / 101,190

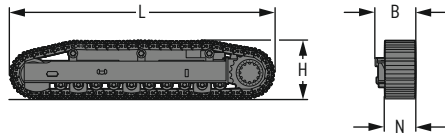
Dimensions and weights



Basic machine

without side frames

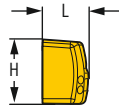
B	mm / ft in	2,995 / 9'10"
H	mm / ft in	2,810 / 9' 3"
Weight	kg / lb	26,100 / 57,540



Side frame

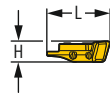
for LC-V undercarriage

L	Length	mm / ft in	5,555 / 18' 3"
H	Height	mm / ft in	1,175 / 3'10"
N		mm / ft in	600 / 24"
B		mm / ft in	795 / 2' 7"
Weight		kg / lb	7,400 / 16,310



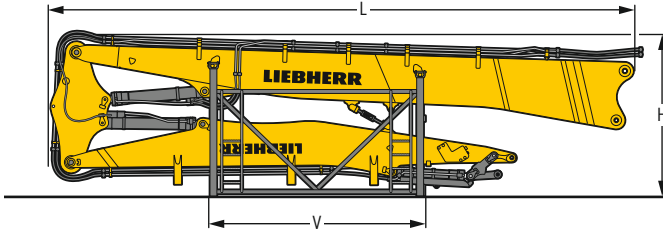
Counterweight

L	Length	mm / ft in	910 / 3'
H	Height	mm / ft in	1,290 / 4'3"
Width		mm / ft in	2,970 / 9'9"
Weight		kg / lb	7,900 / 17,420



Additional counterweight

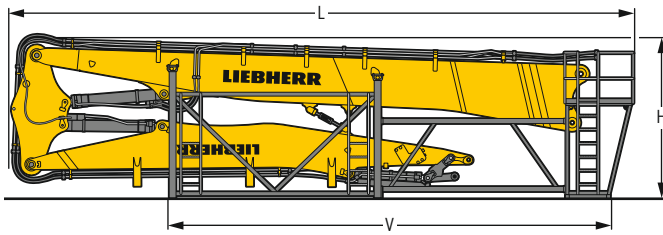
L	Length	mm / ft in	1,260 / 4' 2"
H	Height	mm / ft in	400 / 1' 4"
Width		mm / ft in	2,990 / 9'10"
Weight		kg / lb	3,900 / 8,600



Demolition equipment

with storage rack

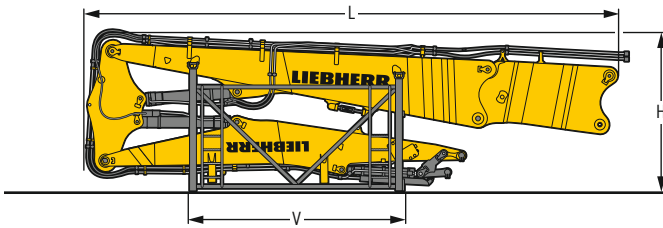
L Length	mm / ft in	22.50 m / 73'10"	25.00 m / 82'	26.50 m / 86'11"	27.50 m / 90' 3"
H Height	mm / ft in	8,450 / 27' 9"	10,950 / 35'11"	10,920 / 35'10"	11,930 / 39' 2"
V	mm / ft in	3,300 / 10'10"	3,300 / 10'10"	3,300 / 10'10"	3,300 / 10'10"
Width	mm / ft in	4,450 / 14' 7"	4,450 / 14' 7"	4,445 / 14' 7"	4,445 / 14' 7"
Weight					
without attachment	kg / lb	10,100 / 22,270	11,200 / 24,690	11,400 / 25,130	13,050 / 28,770



Demolition equipment

with storage rack with catwalks

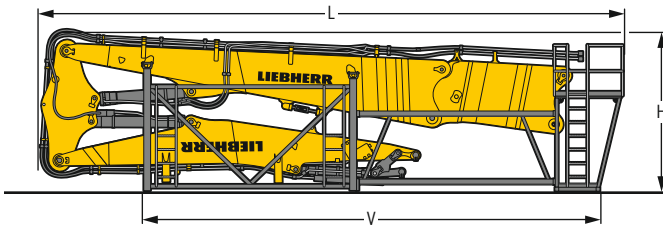
L Length	mm / ft in	22.50 m / 73'10"	25.00 m / 82'	26.50 m / 86'11"	27.50 m / 90' 3"
H Height	mm / ft in	9,500 / 31' 2"	11,850 / 38'11"	11,830 / 38'10"	12,840 / 42' 2"
V	mm / ft in	3,300 / 10'10"	3,300 / 10'10"	3,300 / 10'10"	3,300 / 10'10"
Width	mm / ft in	6,200 / 20' 4"	9,150 / 30'	4,445 / 14' 7"	4,445 / 14' 7"
Weight					
without attachment	kg / lb	10,700 / 23,590	12,000 / 26,460	12,200 / 26,900	13,850 / 30,530



Demolition equipment with demolition boom extension

with storage rack

L Length	mm / ft in		25.00 m / 82'	29.00 m / 95'2"
H Height	mm / ft in	10,950 / 35'11"	11,830 / 38'10"	13,450 / 44' 2"
V	mm / ft in	3,250 / 10' 8"	3,300 / 10'10"	3,300 / 10'10"
Width	mm / ft in	4,450 / 14' 7"	7,700 / 25' 3"	7,700 / 25' 3"
Weight without attachment	kg / lb	2,200 / 7' 3"	2,200 / 7' 3"	13,190 / 29,080
				14,450 / 47' 5"

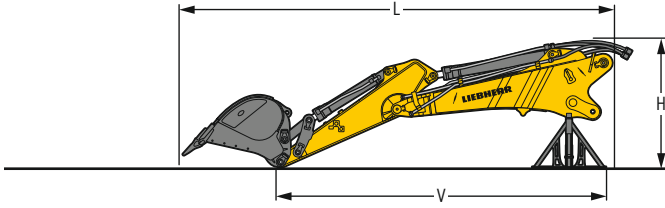


Demolition equipment with demolition boom extension

with storage rack with catwalks

L Length	mm / ft in		25.00 m / 82'	29.00 m / 95'2"
H Height	mm / ft in	12,000 / 39' 4"	14,100 / 46' 3"	14,100 / 46' 3"
V	mm / ft in	3,250 / 10' 8"	3,300 / 10'10"	3,300 / 10'10"
Width	mm / ft in	8,700 / 28' 7"	10,350 / 33'11"	10,350 / 33'11"
Weight without attachment	kg / lb	2,500 / 8' 2"	2,500 / 8' 2"	14,110 / 31,110
				15,550 / 51'

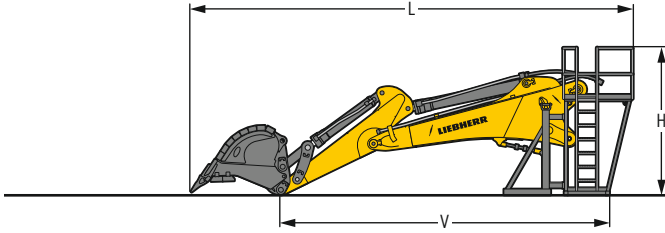
Dimensions and weights



Backhoe equipment

with storage rack

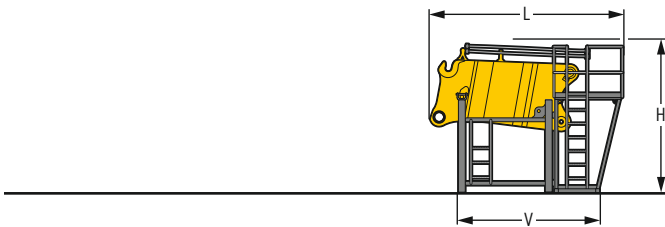
Main boom length	m/ft in	4,30/14'1"	
Stick length	m/ft in	2,10/ 6'11"	2,60/ 8' 6"
L Length	mm/ft in	8,400/27' 7"	8,900/29' 2"
H Height	mm/ft in	2,600/ 8' 6"	2,600/ 8' 6"
V	mm/ft in	6,100/20'	6,600/21' 8"
Width	mm/ft in	1,800/ 5'11"	1,800/ 5'11"
Weight without bucket	kg/lb	6,050/13,340	6,150/13,560



Backhoe equipment

with storage rack with catwalks

Main boom length	m/ft in	4,30/14'1"	
Stick length	m/ft in	2,10/ 6'11"	2,60/ 8' 6"
L Length	mm/ft in	9,000/29' 6"	9,520/31' 3"
H Height	mm/ft in	3,020/ 9'11"	3,020/ 9'11"
V	mm/ft in	6,700/22'	7,220/23' 8"
Width	mm/ft in	2,500/ 8' 2"	2,500/ 8' 2"
Weight without bucket	kg/lb	6,185/13,640	6,300/13,890

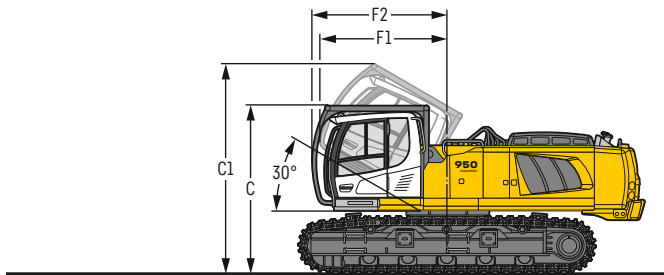
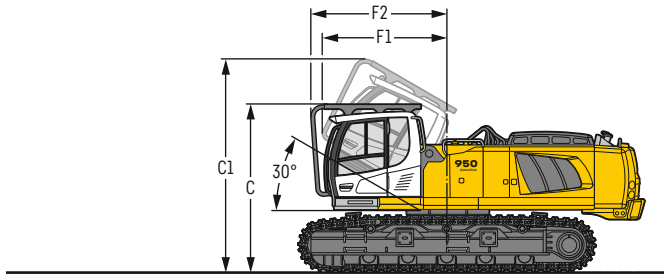


Demolition boom extension

with storage rack with catwalks

L Length	mm/ft in	3,950/13'
H Height	mm/ft in	3,150/10'4"
V	mm/ft in	2,925/ 9'7"
Width	mm/ft in	2,485/ 8'2"
Weight	kg/lb	4,160/9,170

Choice of cab elevations



Version

with cab tiltable 30° and integral protection grid

		VH-HD	LC-V	HD
C	mm / ft in	3,395 / 11' 2"	3,605 / 11' 10"	3,500 / 11' 6"
C1	mm / ft in	4,240 / 13' 11"	4,450 / 14' 7"	4,345 / 14' 3"
F1	mm / ft in	2,540 / 8' 4"	2,540 / 8' 4"	2,540 / 8' 4"
F2	mm / ft in	2,770 / 9' 1"	2,770 / 9' 1"	2,770 / 9' 1"

Version

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

		VH-HD	LC-V	HD
C	mm / ft in	3,395 / 11' 2"	3,605 / 11' 10"	3,500 / 11' 6"
C1	mm / ft in	4,240 / 13' 11"	4,450 / 14' 7"	4,345 / 14' 3"
F1	mm / ft in	2,570 / 8' 5"	2,570 / 8' 5"	2,570 / 8' 5"
F2	mm / ft in	2,730 / 8' 11"	2,730 / 8' 11"	2,730 / 8' 11"

Serial equipment

Undercarriage

Lashing eyes
Sprocket double-toothed
Track rollers, lifetime-lubricated

Uppercarriage

Anti-skid surfaces
Automatic swing brake lock
Centralized lubrication system (automatic)
Engine hood with gas spring opening
Handrails
Lockable fuel tank cap
Lockable tool box
Removable counterweight
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 US EPA Tier 4 Final

Cab

7" multifunction color 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
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	+
Steps	●
Steps wide	+
Tracks, sealed and greased	●
Undercarriage HD	+
Undercarriage LC-V	+
Undercarriage VH-HD	+

Uppercarriage

Air compressor	+
Boxing ring	+
Catwalks tiltable left and right	+
Electric socket on uppercarriage (24 V)	+
Extended tool set including tool box	+
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	+
Hydraulic for counterweight	+
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 color	+
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 (12V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+
Electronic immobilizer	+
Emergency stop in cab	+
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

Boom bottom protection	+
Boom cylinders rod protection	+
Bucket cylinder rod protection for backhoe equipment	+
Camera for equipment	+
Centralized 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.

The Liebherr Group



Global and independent: more than 70 years of success

Liebherr was founded in 1949. With the development of the world's first mobile tower crane, Hans Liebherr laid the foundations of a successful family-run company which today comprises more than 150 companies on all continents with over 50,000 employees. The holding company of the Group is Liebherr-International AG in Bulle (Switzerland), whose shareholders are exclusively members of the Liebherr family.

Technology leadership and pioneering spirit

Liebherr regards itself as a pioneer. This spirit has enabled the company to make a decisive contribution to the technological history of many industries. Today, employees around the world still share the courage of the company founder to take new paths. They are all united by a passion for technology and fascinating products and the determination to perform outstanding work for their customers.

Widely diversified product program

Not only is Liebherr one of the biggest construction machine manufacturers in the world, it also provides high-quality, user-oriented products and services in a wide range of other areas. The product program includes the segments earthmoving machinery, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels.

Customized solutions and maximum customer value

Liebherr solutions are characterized by maximum precision, outstanding implementation and exceptional longevity. Its mastery of key technologies enables the company to offer its customers customized solutions. For Liebherr, customer focus does not end with the product; it also encompasses a wide range of services that make a real difference.

www.liebherr.us

WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65warnings.ca.gov.

Liebherr USA, Co.

Construction Equipment Division • 4800 Chestnut Avenue • Newport News, VA 23607, USA • Phone +1 (757) 240 4250
construction.usa@liebherr.com • www.liebherr.us • www.facebook.com/LiebherrConstruction