

# Equipment Information: Demolition Excavator

## R 950

Litronic®

### Engine

220 kW / 299 HP

Stage V

Stage IV

Non-regulated only for select markets

### Operating Weight

53,100 – 75,850 kg

### Working Height

27.50 m

H/2: 24.25 m



# LIEBHERR

# Technical Data



## Engine

<b>Rating per ISO 9249</b>	220 kW (299 HP) at 1,800 RPM
<b>Torque</b>	1,450 Nm at 1,100 RPM
<b>Model</b>	Liebherr D944 A7-25 (Stage V) or Liebherr D944 A7-24 (Stage IV) or Liebherr D944 A7-20 (non-regulated only for select markets)
<b>Type</b>	4 cylinder in-line
Bore	130 mm
Stroke	150 mm
Displacement	7.964 l
<b>Engine operation</b>	4-stroke diesel Common-Rail, monoturbo
<b>Exhaust gas treatment</b>	DOC + DPF + SCR (Stage V) or SCR (Stage IV) or without EGR (non-regulated only for select markets)
<b>Cooling system</b>	Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
<b>Air cleaner</b>	Dry-type air cleaner with pre-cleaner, primary and safety elements
<b>Fuel tank</b>	770 l
<b>Urea tank</b>	90 l
<b>Electrical system</b>	
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
<b>Motor management</b>	Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



## Hydraulic Controls

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



## Hydraulic System

<b>Hydraulic system</b>	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
<b>Hydraulic pumps</b>	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 305 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
<b>Pump management</b>	Electronic pump management via the integrated system controlling (CAN-BUS) synchronous to the control block
<b>Hydraulic tank</b>	380 l
<b>Hydraulic system</b>	1,150 l with demolition equipment
<b>Hydraulic oil filter</b>	1 full flow filter (10 µm) in return line with integrated fine filter area (5 µm)
<b>Cooling system</b>	Compact cooler, consisting of a water cooler, with hydraulic oil cooler, gearbox oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
<b>MODE selection</b>	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
<b>RPM adjustment</b>	Stepless adjustment of engine output via RPM at each selected mode
<b>Tool Control</b>	20 preadjustable pump flows and pressures for add-on attachments
<b>Attachment system</b>	
Flow	305 l/min.
Pressure	380 bar
<b>Attachment rotation system</b>	
Flow	30 l/min.
Pressure	140 bar
Max. pressure	180 bar



## Swing Drive

<b>Drive</b>	Liebherr swashplate motor with integrated brake valve
<b>Transmission</b>	Liebherr compact planetary reduction gears
<b>Swing ring</b>	Liebherr, sealed race ball bearing swing ring, internal teeth
<b>Swing speed</b>	0 – 5,8 RPM stepless
<b>Swing torque</b>	160 kNm
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)



## Operator's Cab

<b>Cab</b>	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, sounddamping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, cigarette lighter and 12 V plug, storage bins, lunchbox, cup holder, polycarbonate windows on right side
<b>Operator's seat</b>	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
<b>Control system</b>	Arm consoles, swinging with the seat
<b>Operation and displays</b>	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
<b>Air-conditioning</b>	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
CO2 equivalent	1.80 t
<b>Vibration emission**</b>	
Hand/arm vibrations	< 2.5 m/s <sup>2</sup> , according with ISO 5349-1:2001
Whole-body vibrations	< 0.5 m/s <sup>2</sup>
Measuring inaccuracy	According with standard EN 12096:1997
<b>Noise emission</b>	
ISO 6396	L <sub>pA</sub> (inside cab) = 72 dB(A)
2000/14/EC	L <sub>WA</sub> (surround noise) = 105 dB(A)

\* 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



## Undercarriage

<b>Variante</b>	
VH-HD	Hydraulic variable gauge
LC-V	Mechanical variable gauge
HD	Standard
<b>Drive</b>	Liebherr swashplate motor with integrated brake valve
<b>Transmission</b>	Liebherr compact planetary reduction gear
<b>Maximum travel speed</b>	Low range 2.2 km/h High range 3.1 km/h
<b>Net drawbar pull on crawler</b>	VH-HD: 488 kN LC-V/HD: 457 kN
<b>Track components</b>	D8L, maintenance-free
<b>Track rollers/Carrier rollers</b>	VH-HD: 11/3 HD: 9/2 LC-V: 10/3
<b>Tracks</b>	Sealed and greased
<b>Track pads</b>	Triple grouser
<b>Holding brake</b>	Wet multi-disc (spring applied, pressure released)



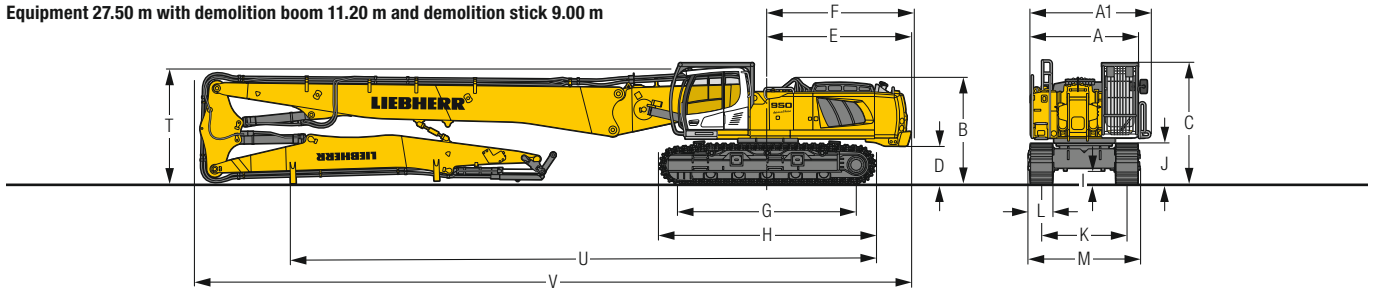
## Equipment

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

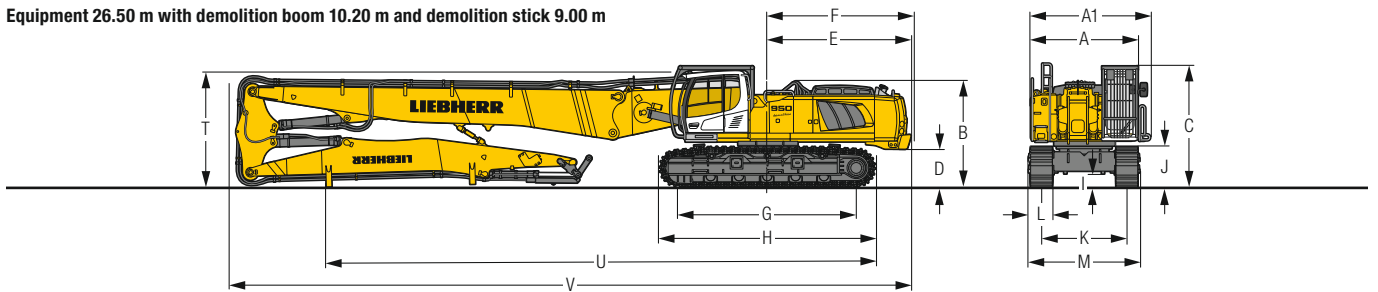


# Dimensions

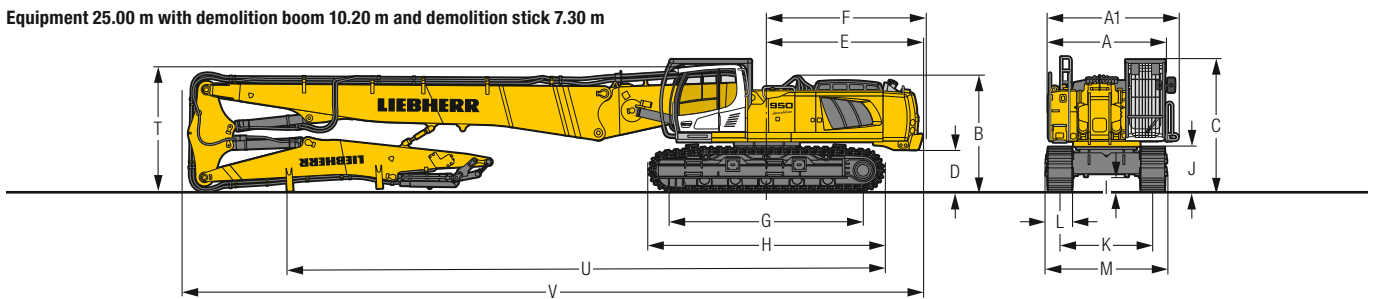
Equipment 27.50 m with demolition boom 11.20 m and demolition stick 9.00 m



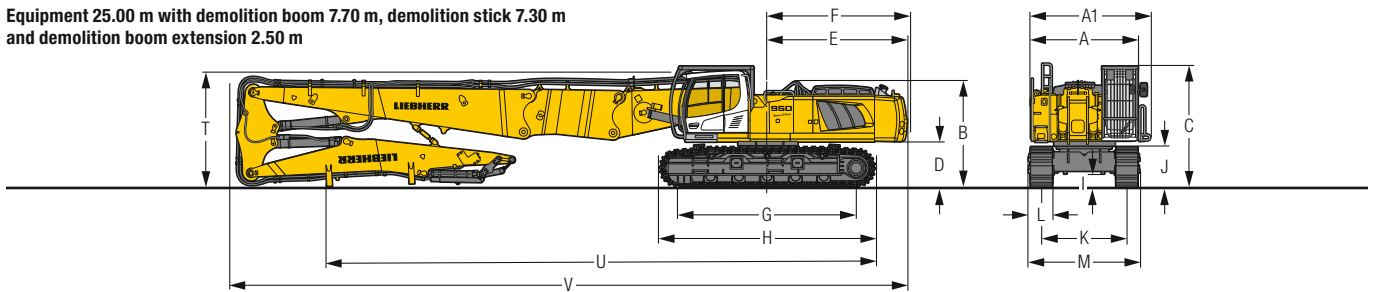
Equipment 26.50 m with demolition boom 10.20 m and demolition stick 9.00 m



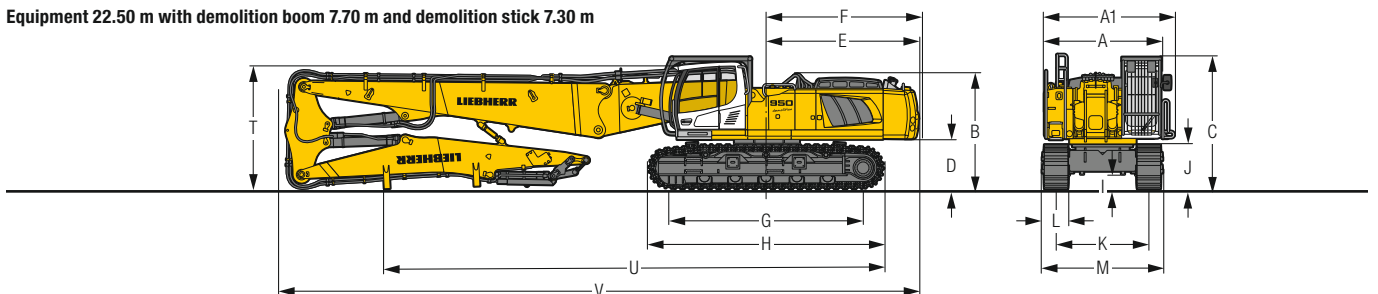
Equipment 25.00 m with demolition boom 10.20 m and demolition stick 7.30 m



Equipment 25.00 m with demolition boom 7.70 m, demolition stick 7.30 m and demolition boom extension 2.50 m



Equipment 22.50 m with demolition boom 7.70 m and demolition stick 7.30 m



	VH-HD	mm	LC-V	mm	HD	mm
<b>A</b>	Upper-carriage width	2,985**		2,985**		2,985**
<b>A1</b>	Upper-carriage width with catwalks	3,325		3,325		3,325
<b>B</b>	Upper-carriage height	2,970		3,180		3,075
<b>C</b>	Cab height	3,395		3,605		3,500
<b>D</b>	Counterweight ground clearance	1,070		1,280		1,175
<b>E</b>	Rear-end length	4,015		4,015		4,015
<b>F</b>	Tail swing radius	4,060		4,060		4,060
<b>G</b>	Wheelbase	4,980		4,500		4,500
<b>H</b>	Under-carriage length	6,040		5,555		5,550
<b>I</b>	Under-carriage ground clearance	350		800		570
<b>J</b>	Track height	1,135		1,175		1,225
<b>K</b>	Track gauge	2,380 – 3,430		2,390 – 2,890		2,900
<b>L</b>	Track pad width	600		600		600
<b>M</b>	Width over tracks	3,100 – 4,150		2,990 – 3,490		3,500
<b>N</b>	Width over steps	3,370 – 4,420*		3,200 – 3,700*		3,715

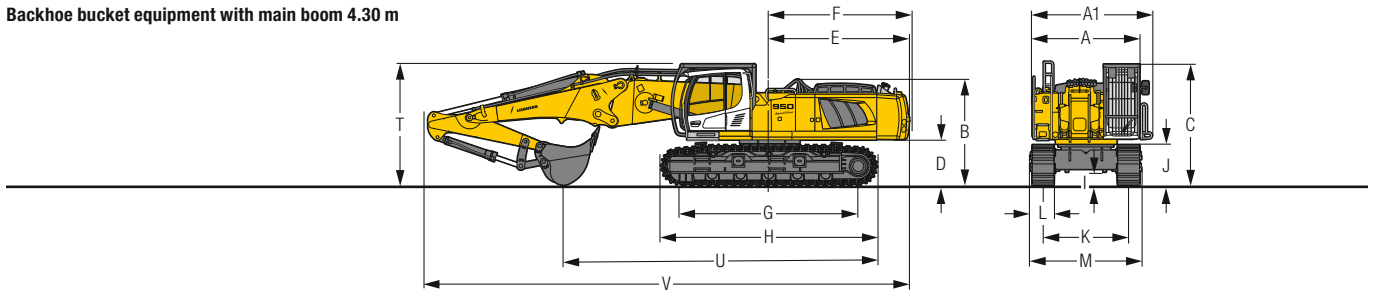
\* width with removable steps

\*\* without door stop device and spacer

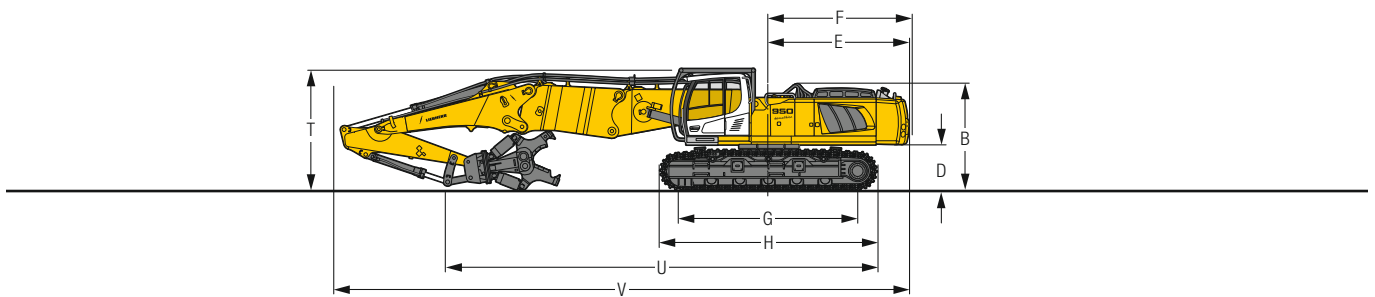
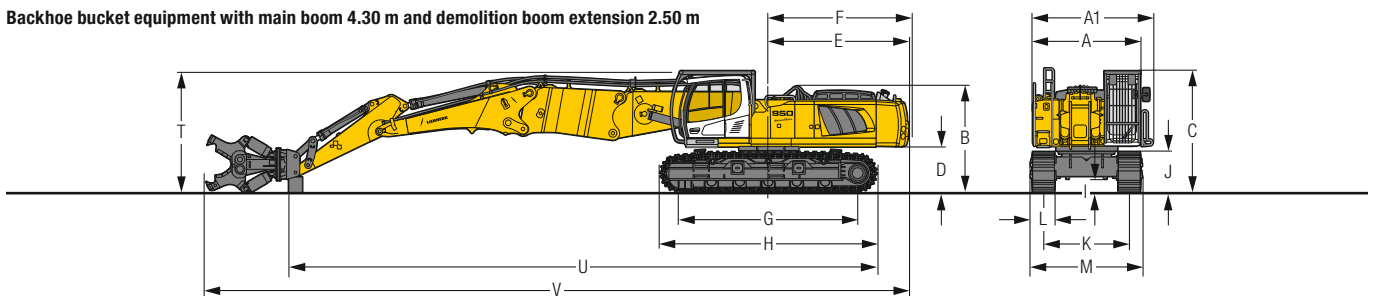
	Demolition equipment 27.50 m			Demolition equipment 26.50 m			Demolition equipment 25.00 m with demolition boom 10.20 m			Demolition equipment 25.00 m with demolition boom 7.70 m			Demolition equipment 22.50 m			
	VH-HD	LC-V	HD	VH-HD	LC-V	HD	VH-HD	LC-V	HD	VH-HD	LC-V	HD	VH-HD	LC-V	HD	
<b>T</b>	Boom height	3,200	3,400	3,300	3,200	3,400	3,300	3,200	3,400	3,300	3,200	3,400	3,300	3,200	3,400	3,300
<b>U</b>	Length on ground	15,400	15,100	15,100	15,300	15,000	15,000	12,800	12,500	12,500	15,300	15,000	15,000	12,800	12,500	12,500
<b>V</b>	Overall length	20,000	20,000	20,000	19,000	19,000	19,000	19,000	19,000	19,000	18,900	18,900	18,900	16,400	16,400	16,400

# Dimensions

Backhoe bucket equipment with main boom 4.30 m

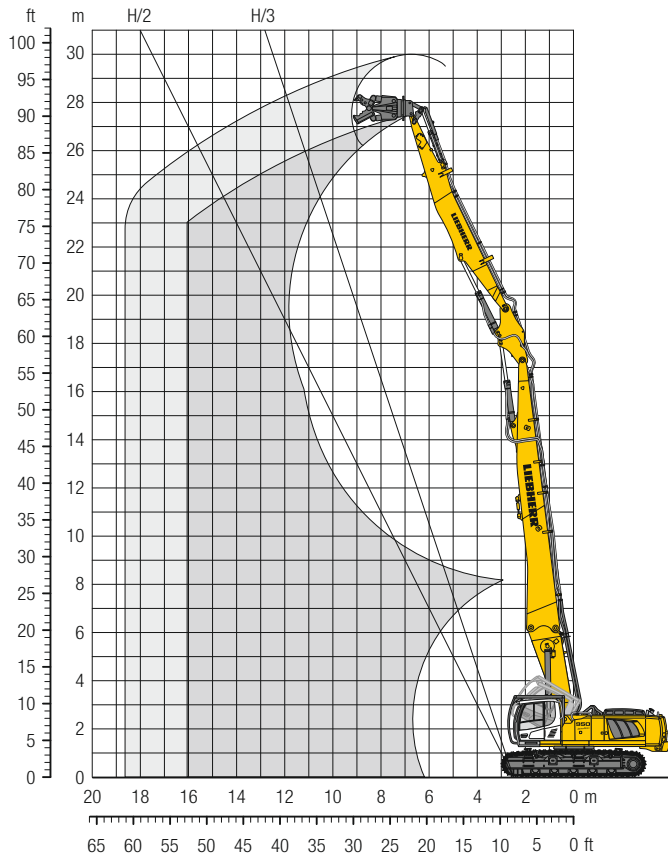


Backhoe bucket equipment with main boom 4.30 m and demolition boom extension 2.50 m



	Stick length m	Backhoe bucket equipment			Backhoe bucket equipment with demolition boom extension		
		VH-HD	mm LC-V	HD	VH-HD	mm LC-V	HD
<b>T</b> Boom height	2.10	3,400	3,500	3,450	3,400	3,500	3,450
	2.60	3,450	3,550	3,500	3,350	3,450	3,400
<b>U</b> Length on ground	2.10	8,750	8,450	8,500	11,250	10,950	11,000
	2.60	8,300	7,950	8,050	12,000	11,750	11,800
<b>U1</b>	2.10	–	–	–	–	–	–
	2.60	–	–	–	16,350	16,150	16,200
<b>V</b> Overall length	2.10	13,500	13,500	13,500	16,000	16,000	16,000
	2.60	13,500	13,500	13,500	16,000	11,600	16,000
<b>V1</b>	2.10	–	–	–	–	–	–
	2.60	–	–	–	19,600	19,600	19,600

# Demolition Equipment 27.50 m



## Reach Limitation

		12 m	14 m	16 m
<b>Demolition boom 11.20 m + Intermediate boom + Demolition stick 9.00 m VH-HD-Undercarriage</b>		<b>Attachment weight*</b>		
	<b>lengthwise</b>	3.00	3.00	3.00
	<b>transverse</b>	3.00	3.00	2.25
<b>LC-V-Undercarriage</b>				
	<b>lengthwise</b>	3.00	3.00	2.50
	<b>transverse</b>	3.00	2.00	1.50
<b>HD-Undercarriage</b>				
	<b>lengthwise</b>	–	–	–
	<b>transverse</b>	–	–	–

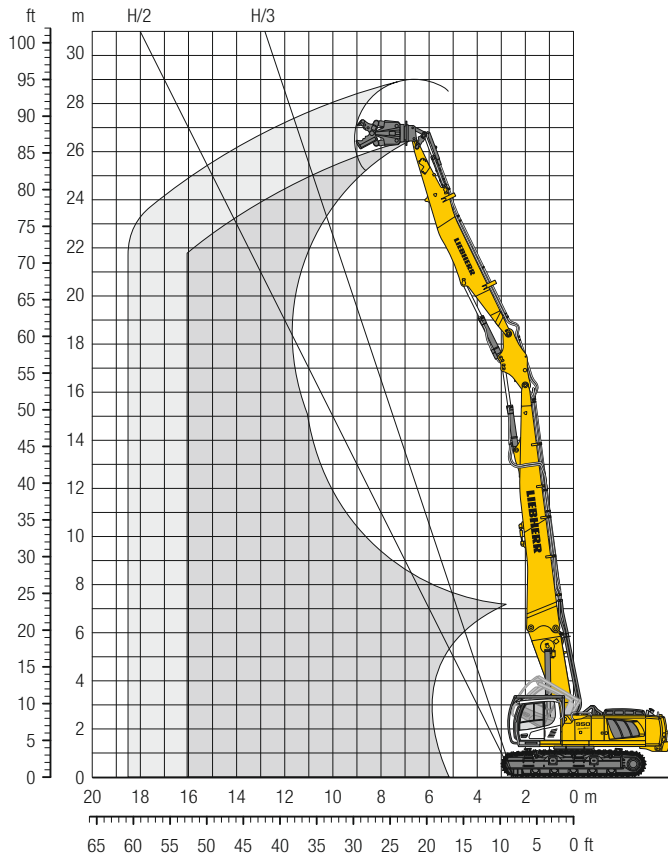
\* included quick coupler, adapter plate and attachment

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 13.1 t including 3.9 t removable, demolition boom 11.20 m, intermediate boom 2.25 m, demolition stick 9.00 m and attachment 3.0 t.

<b>Undercarriage</b>		<b>VH-HD</b>	<b>LC-V</b>	<b>HD</b>
<b>Pad width</b>	<b>mm</b>	600	600	600
<b>Weight</b>	<b>kg</b>	75,550	68,050	65,050
<b>Ground pressure</b>	<b>kg/cm<sup>2</sup></b>	1.18	1.16	1.11

# Demolition Equipment 26.50 m



## Reach Limitation

		12 m	14 m	16 m
<b>Demolition boom 10.20 m + Intermediate boom + Demolition stick 9.00 m VH-HD-Undercarriage</b>	<b>Attachment weight*</b>			
	<b>in t</b>			
<b>LC-V-Undercarriage</b>	<b>lengthwise</b>	3.00	3.00	3.00
	<b>transverse</b>	3.00	3.00	2.50
<b>HD-Undercarriage</b>	<b>lengthwise</b>	3.00	3.00	2.25
	<b>transverse</b>	2.75	2.00	–

\* included quick coupler, adapter plate and attachment

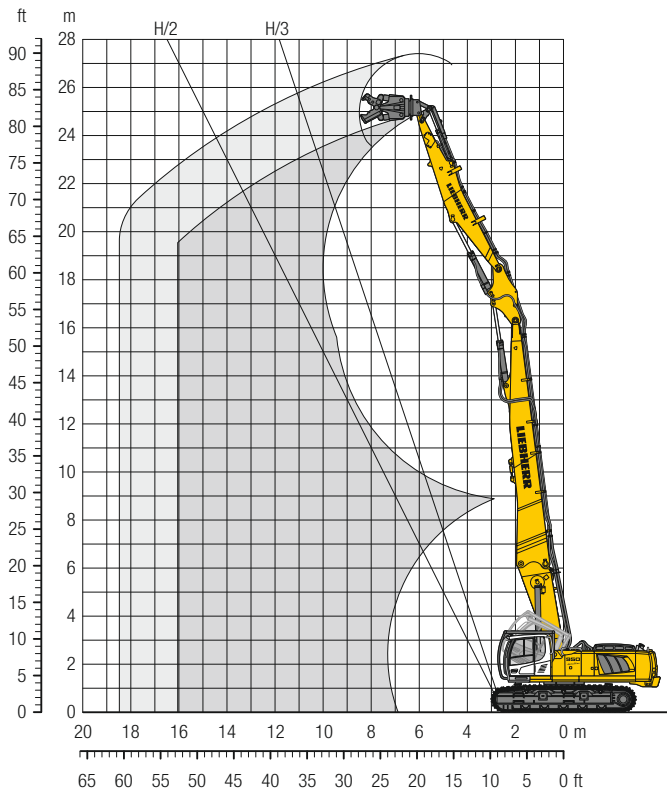
## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 13.1 t including 3.9 t removable, demolition boom 10.20 m, intermediate boom 2.25 m, demolition stick 9.00 m and attachment 3.0 t.

<b>Undercarriage</b>		<b>VH-HD</b>	<b>LC-V</b>	<b>HD</b>
<b>Pad width</b>	<b>mm</b>	600	600	600
<b>Weight</b>	<b>kg</b>	73,900	66,400	63,400
<b>Ground pressure</b>	<b>kg/cm<sup>2</sup></b>	1.15	1.14	1.08



# Demolition Equipment 25.00 m



## Reach Limitation

		12 m	14 m	16 m
<b>Demolition boom 10.20 m + Intermediate boom + Demolition stick 7.30 m VH-HD-Undercarriage</b>		<b>Attachment weight*</b>		
	<b>lengthwise</b>	3.50	3.50	3.50
	<b>transverse</b>	3.50	3.00	2.25
<b>LC-V-Undercarriage</b>				
	<b>lengthwise</b>	3.50	3.50	2.75
	<b>transverse</b>	3.00	2.25	1.50
<b>HD-Undercarriage</b>				
	<b>lengthwise</b>	3.50	3.50	2.75
	<b>transverse</b>	2.75	2.00	1.50

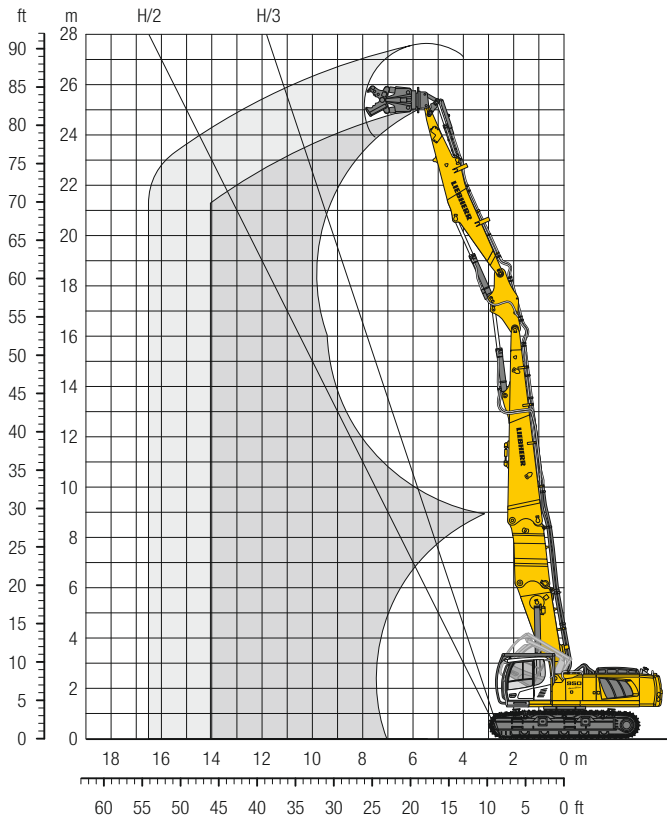
\* included quick coupler, adapter plate and attachment

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 13.1 t including 3.9 t removable, demolition boom 10.20 m, intermediate boom 2.25 m, demolition stick 7.30 m and attachment 3.5 t.

<b>Undercarriage</b>		<b>VH-HD</b>	<b>LC-V</b>	<b>HD</b>
<b>Pad width</b>	<b>mm</b>	600	600	600
<b>Weight</b>	<b>kg</b>	74,100	66,600	63,600
<b>Ground pressure</b>	<b>kg/cm<sup>2</sup></b>	1.15	1.14	1.09

# Demolition Equipment 25.00 m



## Reach Limitation

		12 m	14 m	16 m
<b>Demolition boom 7.70 m + Demolition boom extension 2.50 m + Intermediate boom + Demolition stick 7.30 m</b>		<b>Attachment weight* in t</b>		
<b>VH-HD-Undercarriage</b>	<b>lengthwise</b>	3.50	3.50	3.25
	<b>transverse</b>	3.50	2.75	2.00
<b>LC-V-Undercarriage</b>	<b>lengthwise</b>	3.50	3.25	2.25
	<b>transverse</b>	2.25	1.50	–
<b>HD-Undercarriage</b>	<b>lengthwise</b>	3.50	3.00	2.25
	<b>transverse</b>	2.50	1.75	–

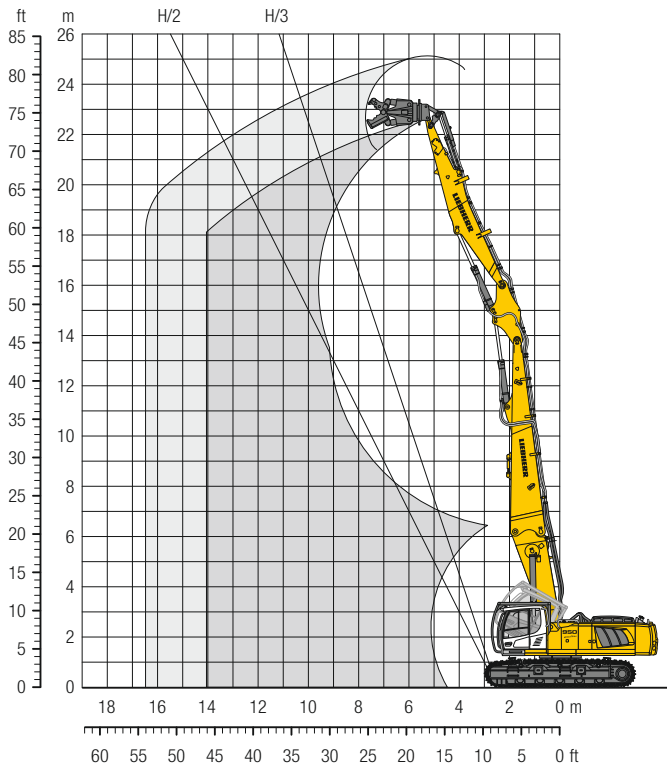
\* included quick coupler, adapter plate and attachment

## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 13.1 t including 3.9 t removable, demolition boom 7.70 m, demolition boom extension 2.50 m, intermediate boom 2.25 m, demolition stick 7.30 m and attachment 3.25 t.

<b>Undercarriage</b>		<b>VH-HD</b>	<b>LC-V</b>	<b>HD</b>
<b>Pad width</b>	<b>mm</b>	600	600	600
<b>Weight</b>	<b>kg</b>	75,850	68,350	65,350
<b>Ground pressure</b>	<b>kg/cm<sup>2</sup></b>	1.18	1.17	1.12

# Demolition Equipment 22.50 m



## Reach Limitation

		10 m	12 m	14 m
<b>Demolition boom 7.70 m + Intermediate boom + Demolition stick 7.30 m VH-HD-Undercarriage</b>		<b>Attachment weight*</b>		
	<b>lengthwise</b>	3.50	3.50	3.50
	<b>transverse</b>	3.50	3.50	2.25
<b>LC-V-Undercarriage</b>				
	<b>lengthwise</b>	3.50	3.50	2.75
	<b>transverse</b>	3.50	2.50	1.50
<b>HD-Undercarriage</b>				
	<b>lengthwise</b>	3.50	3.50	2.50
	<b>transverse</b>	3.25	2.50	1.50

\* included quick coupler, adapter plate and attachment

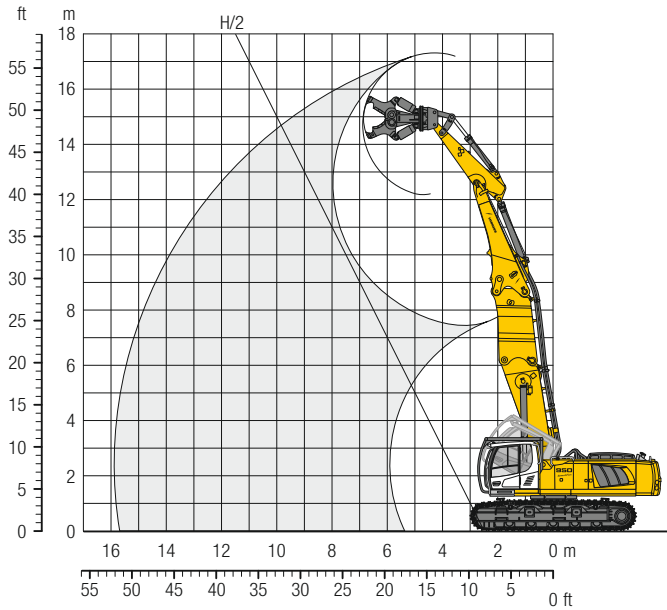
## Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 9.2 t, demolition boom 7.70 m, intermediate boom 2.25 m, demolition stick 7.30 m and attachment 3.5 t.

<b>Undercarriage</b>		<b>VH-HD</b>	<b>LC-V</b>	<b>HD</b>
<b>Pad width</b>	<b>mm</b>	600	600	600
<b>Weight</b>	<b>kg</b>	69,300	61,800	58,800
<b>Ground pressure</b>	<b>kg/cm<sup>2</sup></b>	1.08	1.06	1.00

# Backhoe Bucket

with Main Boom 4.30 m and Demolition Boom Extension 2.50 m



## Operating Weight and Ground Pressure

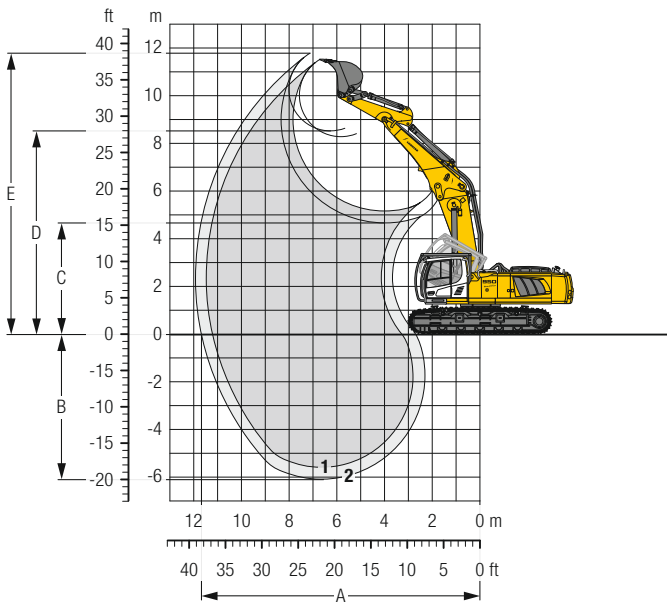
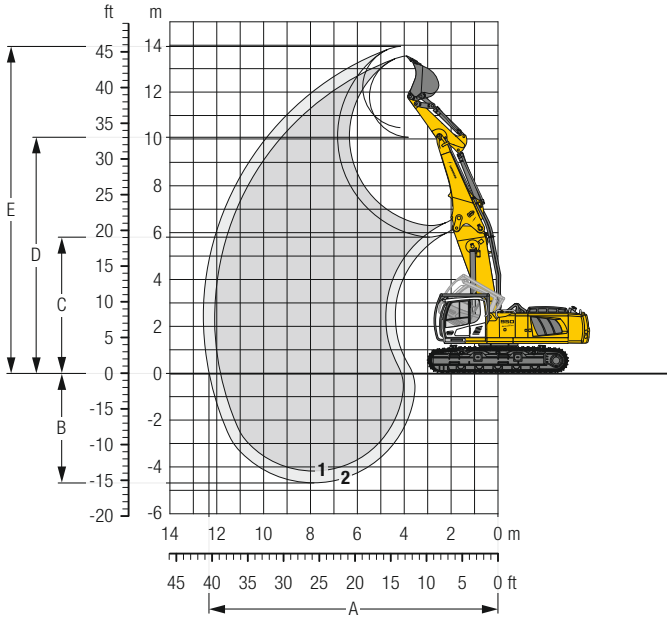
The operating weight includes the basic machine with counterweight 9.2 t, main boom 4.30 m, demolition boom extension 2.50 m, HD stick 2.60 m and attachment\* 4.5 t.

Undercarriage		VH-HD	LC-V	HD
Pad width	mm	600	600	600
Weight	kg	69,925	62,425	59,425
Ground pressure	kg/cm <sup>2</sup>	1.09	1.07	1.01

\* included quick coupler, adapter plate and attachment

# Backhoe Bucket

## with Main Boom 4.30 m



### Digging Envelope

Main Boom pinned in upper (in lower) bearing

	1	2
Stick length	m 2.10	2.60
A Max. reach at ground level	m 11.85 (11.20)	12.35 (11.70)
B Max. digging depth	m 4.20 ( 5.60)	4.70 ( 6.10)
C Min. dumping height	m 6.30 ( 5.15)	5.80 ( 4.65)
D Max. dumping height	m 10.05 ( 8.30)	10.50 ( 8.50)
E Max. cutting height	m 13.55 (11.50)	13.95 (11.80)

### Forces

	1	2
Stick digging force (ISO 6015)	kN 229	201
Bucket digging force (ISO 6015)	kN 237	237
Stick digging force (SAE J1179)	kN 218	193
Bucket digging force (SAE J1179)	kN 212	212

Max. bucket digging force ISO 300 kN

### Operating Weight and Ground Pressure

The operating weight includes the basic machine with counterweight 9.2 t, main boom 4.30 m, HD stick 2.10 m and HD bucket 1.25 m<sup>3</sup> (1,380 kg).

Undercarriage	VH-HD	LC-V	HD
Pad width	mm 600	600	600
Weight	kg 63,600	56,100	53,100
Ground pressure	kg/cm <sup>2</sup> 0.99	0.96	0.91

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

Cutting width mm	Capacity ISO 7451 m <sup>3</sup>	Weight kg	VH-HD-Undercarriage (with track pads 600 mm)		LC-V-Undercarriage (with track pads 600 mm)		HD-Undercarriage (with track pads 600 mm)	
			Stick length (m)		Stick length (m)		Stick length (m)	
			2.10	2.60	2.10	2.60	2.10	2.60
1,350	1.50	1,470	▲	▲	▲	▲	▲	▲
1,500	1.75	1,560	▲	▲	▲	▲	▲	▲
1,650	2.00	1,700	▲	▲	▲	▲	▲	▲
1,650	2.25	1,820	▲	▲	▲	▲	▲	■
1,850	2.50	1,990	▲	▲	▲	■	■	■

\* 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/m<sup>3</sup>, ■ = ≤ 1.8 t/m<sup>3</sup>, ■ = ≤ 1.5 t/m<sup>3</sup>



# Lift Capacities

with Main Boom 4.30 m (pinned in upper bearing), Counterweight 9.2 t and Track Pads 600 mm

### Stick 2.10 m

Under-carriage	m	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
WH-HD	12.0											12.1*	12.1*	6.2
	10.5											10.4*	10.4*	7.9
	9.0	16.9*	16.9*	14.8*	14.8*	14.8*	14.8*					9.7*	9.7*	9.0
	7.5	28.7*	28.7*	22.1*	22.1*	15.7	18.6*					9.4*	9.4*	9.7
	6.0			21.0	24.2*	15.2	19.4*	11.5	16.7*			9.3*	9.3*	10.1
	4.5					14.5	20.3*	11.2	17.0*			9.0	9.5*	10.3
	3.0					13.9	20.8*	10.9	16.7			9.0	9.9*	10.3
	1.5					13.6	20.4*	10.7	16.4			9.3	10.6*	10.0
	0					13.5	19.2*	10.6	15.9*			10.1	11.9*	9.5
	-1.5					13.6	17.0*	10.7	13.8*					
LC-V	12.0											11.8*	11.8*	6.2
	10.5											10.3*	10.3*	7.9
	9.0	17.1*	17.1*	15.8*	15.8*	11.9	15.5*					8.5	9.6*	9.0
	7.5	25.8	29.1*	16.5	22.3*	11.1	18.0	8.6	10.7*			7.4	9.4*	9.7
	6.0			15.1	24.4*	11.1	17.4	8.4	13.1			6.8	9.3*	10.1
	4.5					10.4	16.7	8.1	12.8			6.5	9.5*	10.3
	3.0					9.9	16.1	7.8	12.4			6.4	10.0*	10.3
	1.5					9.6	15.8	7.6	12.2			6.7	10.6	10.0
	0			10.8*	10.8*	9.5	15.7	7.6	12.2			7.3	11.6	9.5
	-1.5					9.7	15.8	7.7	12.3					
HD	12.0											11.9*	11.9*	6.2
	10.5											10.1	10.4*	7.9
	9.0	17.0*	17.0*	16.6	17.7*	11.4	15.2*					8.1	9.7*	9.0
	7.5	24.9	28.9*	15.8	22.2*	11.1	17.5	8.1	9.9*			7.0	9.4*	9.7
	6.0			14.5	24.1	10.6	16.9	8.0	12.7			6.4	9.3*	10.1
	4.5					9.9	16.1	7.7	12.3			6.1	9.5*	10.3
	3.0					9.4	15.5	7.4	12.0			6.1	9.8	10.3
	1.5					9.1	15.2	7.2	11.8			6.3	10.2	10.0
	0			10.2*	10.2*	9.0	15.1	7.1	11.7			6.9	11.1	9.5
	-1.5					9.1	15.2	7.3	11.8					

### Stick 2.60 m

Under-carriage	m	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
WH-HD	12.0	12.9*	12.9*									12.1*	12.1*	4.6
	10.5			13.6*	13.6*							9.2*	9.2*	7.0
	9.0			13.9*	13.9*	13.3*	13.3*					8.2*	8.2*	8.5
	7.5	17.7*	17.7*	16.4*	16.4*	15.4*	15.4*	11.9	12.3*			7.6*	7.6*	9.5
	6.0			21.4	23.3*	15.3	19.0*	11.6	15.7*			7.4*	7.4*	10.2
	4.5			19.9	25.5*	14.6	20.0*	11.3	16.7*	9.0	9.5*	7.4*	7.4*	10.6
	3.0					14.0	20.6*	10.9	16.7	8.8	12.6*	7.5*	7.5*	10.8
	1.5					13.6	20.6*	10.7	16.4	8.7	13.2	7.8*	7.8*	10.8
	0					13.9*	13.9*	13.4	19.7*	10.5	16.2*	8.3*	8.3*	10.5
	-1.5					18.6	20.5*	13.5	17.8*	10.6	14.6*	9.2*	9.2*	10.1
LC-V	12.0	14.0*	14.0*									11.6*	11.6*	4.6
	10.5			13.7*	13.7*							9.1*	9.1*	7.0
	9.0			14.0*	14.0*	12.2	13.5*					8.1*	8.1*	8.5
	7.5	19.6*	19.6*	16.8	17.0*	11.8	15.7*	8.8	12.6*			7.6*	7.6*	9.5
	6.0			15.5	23.5*	11.2	17.6	8.5	13.2			6.8	7.4*	10.2
	4.5			14.1	23.5	10.6	16.8	8.2	12.8			6.3	7.4*	10.6
	3.0					10.0	16.2	7.8	12.5	6.5	10.0*	6.0	7.5*	10.8
	1.5					9.6	15.8	7.6	12.2	6.2	9.9	6.0	7.8*	10.8
	0					12.9	14.7*	9.5	15.6	7.5	12.1	6.2	8.6*	10.5
	-1.5					13.0	20.2*	9.5	15.7	7.5	12.2	6.7	9.3*	10.1
HD	12.0	13.7*	13.7*									11.8*	11.8*	4.6
	10.5			13.6*	13.6*							9.2*	9.2*	7.0
	9.0			14.0*	14.0*	11.6	13.5*					8.1*	8.1*	8.5
	7.5	18.7*	18.7*	16.2	16.7*	11.3	15.5*	8.3	12.5*			7.4	7.6*	9.5
	6.0			14.9	23.5*	10.7	17.1	8.1	12.8			6.5	7.4*	10.2
	4.5			13.5	22.8	10.1	16.3	7.8	12.4	6.1	9.8	6.0	7.4*	10.6
	3.0					9.5	15.6	7.4	12.0	6.0	9.6	5.7	7.5*	10.8
	1.5					9.1	15.2	7.2	11.7	5.9	9.5	5.7	7.8*	10.8
	0					12.2	14.3*	8.9	15.0	7.1	11.6	5.9	9.0*	10.5
	-1.5					12.3	20.4*	9.0	15.1	7.1	11.7	6.3	9.2*	10.1

with Main Boom 4.30 m (pinned in lower bearing), Counterweight 9.2 t and Track Pads 600 mm

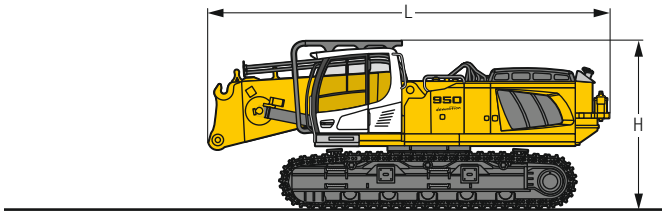
### Stick 2.10 m

Under-carriage	m	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
WH-HD	9.0									10.0*	10.0*	7.0		
	7.5									9.4*	9.4*	8.2		
	6.0			18.5*	18.5*	16.3	16.4*				9.3*	9.3*	9.0	
	4.5			20.7	23.7*	15.1	18.7*	11.6	16.2*			9.5*	9.5*	9.5
	3.0			18.2*	18.2*	14.5	20.0*	11.3	16.8*			9.9*	9.9*	9.7
	1.5			16.9*	16.9*	14.0	20.8*	11.0	16.8			10.0	10.7*	9.7
	0			18.8	25.7*	13.8	20.8*	10.9	16.6			10.3	12.0*	9.4
	-1.5			18.9	24.4*	13.8	19.9*					11.1	14.3*	8.9
	-3.0			19.2	21.7*	14.0	17.6*					12.9	15.9*	8.0
	LC-V	9.0										9.9*	9.9*	7.0
7.5											9.4*	9.4*	8.2	
6.0				17.5	18.7*	12.2	16.6*					8.6	9.3*	9.0
4.5				16.3	21.0*	11.7	17.5*	8.8	10.9*			7.7	9.5*	9.5
3.0				14.8	24.0*	11.1	17.4	8.5	13.2			7.3	10.0*	9.7
1.5				13.3	17.3*	10.4	16.7	8.2	12.8			7.2	10.8*	9.7
0				13.2	17.5*	10.0	16.2	7.9	12.6			7.4	11.8	9.4
-1.5				13.3	22.6	9.8	16.0	7.8	12.4			8.1	12.9	8.9
-3.0				13.6	21.4*	10.1	16.3					9.5	15.2	8.0
HD		9.0										9.9*	9.9*	7.0
	7.5										9.4*	9.4*	8.2	
	6.0			16.8	18.6*	11.7	16.5*					8.2	9.3*	9.0
	4.5			14.2	23.7	10.6	16.9	8.1	12.7			7.4	9.5*	9.5
	3.0			13.1	17.6*	9.9	16.2	7.8	12.4			6.9	10.0*	9.7
	1.5			12.6	17.2*	9.5	15.7	7.5	12.1			6.8	10.8*	9.7
	0			12.5	21.7	9.3	15.4	7.4	12.0			7.0	11.3	9.4
	-1.5			12.6	21.9	9.3	15.4					7.6	12.3	8.9
	-3.0			12.9	21.5*	9.5	15.7					8.9	14.5	8.0

### Stick 2.60 m

Under-carriage	m	4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		m		
WH-HD	9.0										9.3*	9.3*		
	7.5										14.2*	14.2*		
	6.0			26.1*	26.1*	19.7*	19.7*	16.1	16.7*			7.8*	7.8*	7.7
	4.5					21.1	22.6*	15.3	18.1*	11.7	15.7*	7.4*	7.4*	8.8
	3.0			19.8	25.2*	14.6	19.5*	11.3	16.4*			7.5*	7.5*	10.0
	1.5			19.0	23.1*	14.1	20.5*	11.0	16.8			7.8*	7.8*	10.2
	0			18.8	26.2*	13.8	20.8*	10.8	16.6			8.4*	8.4*	10.1
	-1.5			16.2*	16.2*	18.8	25.1*	13.7	20.2*	10.8	16.4*	9.3*	9.3*	9.9
	-3.0			27.3*	27.3*	19.0	22.9*	13.8	18.5*			10.3	10.8*	9.4
	LC-V	9.0										10.2*	10.2*	
7.5											10.2*	10.2*		
6.0				25.6	26.8*	16.9*	16.9*	12.5	14.6*			7.8*</		

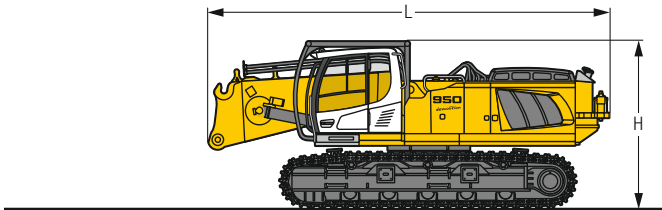
# Dimensions and Weights



## Basic Machine

without counterweight with cab tiltable 30° and integral protection grid

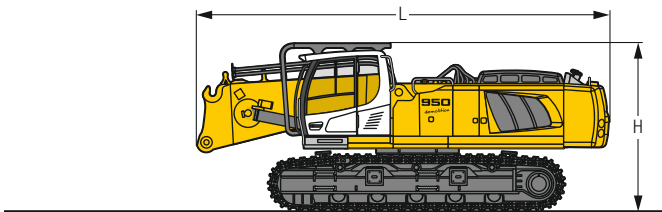
		VH-HD	LC-V	HD
L	mm	8,150	8,150	8,150
H	mm	3,395	3,605	3,500
Weight	kg	48,100	40,600	37,600



## Basic Machine

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

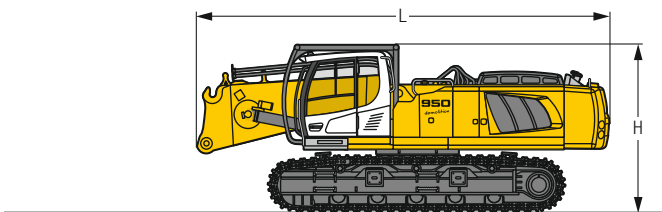
		VH-HD	LC-V	HD
L	mm	8,150	8,150	8,150
H	mm	3,395	3,605	3,500
Weight	kg	48,500	41,000	38,000



## Basic Machine

with counterweight 9.2 t, cab tiltable 30° and integral protection grid

		VH-HD	LC-V	HD
L	mm	8,400	8,400	8,400
H	mm	3,395	3,605	3,500
Weight	kg	56,000	48,500	45,500

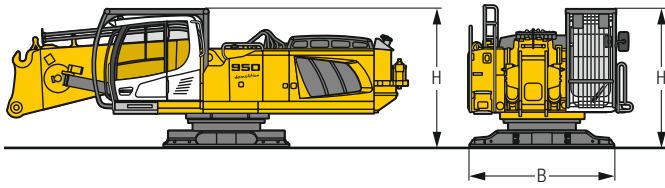


## Basic Machine

with counterweight 9.2 t, cab tiltable 30° and integral protection grid on tilting device

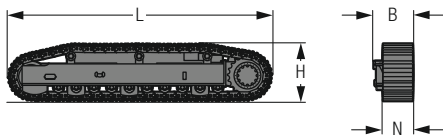
		VH-HD	LC-V	HD
L	mm	8,400	8,400	8,400
H	mm	3,395	3,605	3,500
Weight	kg	56,400	48,900	45,900

# Dimensions and Weights



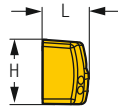
## Basic Machine without side frames

B	mm	2,995
H Height	mm	2,810
Weight	kg	26,100



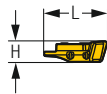
## Side Frame for LC-V-Undercarriage

L Length	mm	5,555
H Height	mm	1,175
N	mm	600
B	mm	795
Weight	kg	7,400



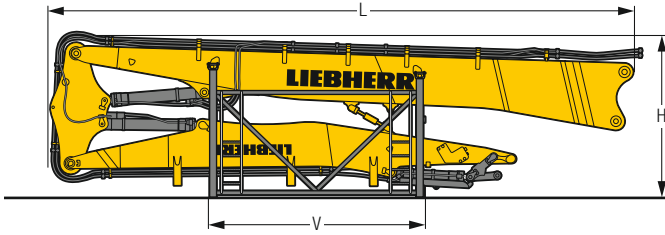
## Counterweight

L Length	mm	910
H Height	mm	1,290
Width	mm	2,970
Weight	kg	7,900



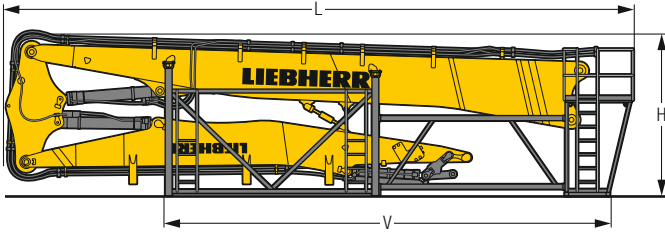
## Additional Counterweight

L Length	mm	1,260
H Height	mm	400
Width	mm	2,990
Weight	kg	3,900



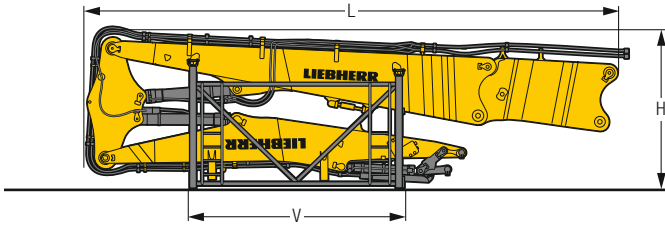
### Demolition Equipment with storage rack

		22.50 m	25.00 m	26.50 m	27.50 m
L Length	mm	8,450	10,950	10,920	11,930
H Height	mm	3,250	3,250	3,300	3,300
V	mm	4,450	4,450	4,445	4,445
Width	mm	2,200	2,200	2,200	2,200
Weight without attachment	kg	10,100	11,200	11,400	13,050



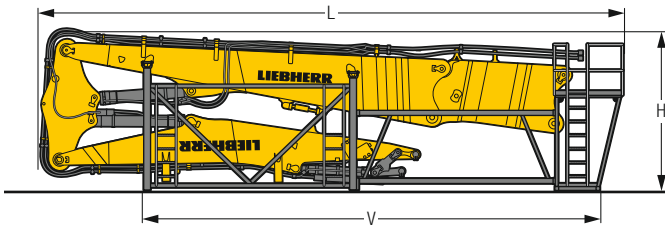
### Demolition Equipment with storage rack with catwalks

		22.50 m	25.00 m	26.50 m	27.50 m
L Length	mm	9,500	11,850	11,830	12,840
H Height	mm	3,250	3,250	3,300	3,300
V	mm	6,200	9,150	4,445	4,445
Width	mm	2,500	2,500	2,485	2,485
Weight without attachment	kg	10,700	12,000	12,200	13,850



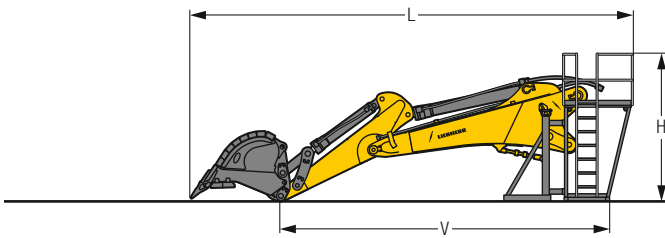
### Demolition Equipment with Demolition Boom Extension with storage rack

			25.00 m
L Length	mm		10,950
H Height	mm		3,250
V	mm		4,450
Width	mm		2,200
Weight without attachment	kg		13,190



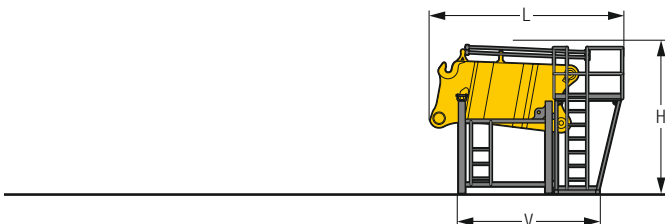
### Demolition Equipment with Demolition Boom Extension with storage rack with catwalks

			25.00 m
L Length	mm		12,000
H Height	mm		3,250
V	mm		8,700
Width	mm		2,500
Weight without attachment	kg		14,110



### Backhoe Equipment with storage rack with catwalks

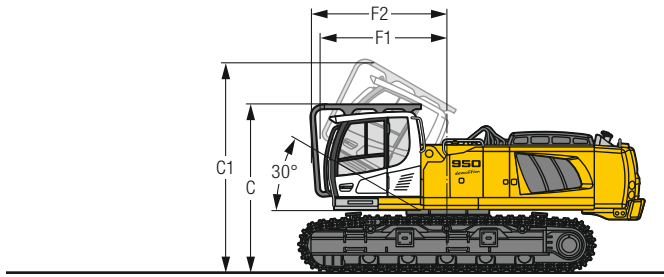
Main boom length	m	4.30
Stick length	m	2.10 2.60
L Length	mm	9,000 9,520
H Height	mm	3,020 3,020
V	mm	6,700 7,220
Width	mm	2,500 2,500
Weight without bucket	kg	6,185 6,300



### 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

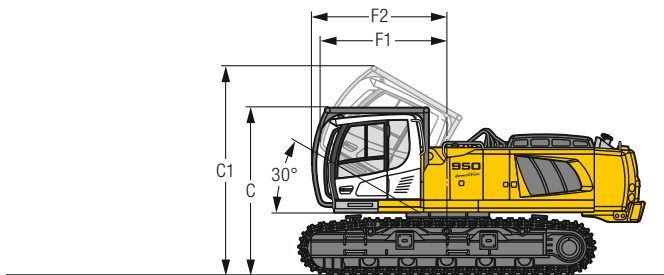
# Choice of Cab Elevations



## Version

with cab tiltable 30° and integral protection grid

		VH-HD	LC-V	HD
<b>C</b>	mm	3,395	3,605	3,500
<b>C1</b>	mm	4,240	4,450	4,345
<b>F1</b>	mm	2,540	2,540	2,540
<b>F2</b>	mm	2,770	2,770	2,770



## Version

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

		VH-HD	LC-V	HD
<b>C</b>	mm	3,395	3,605	3,500
<b>C1</b>	mm	4,240	4,450	4,345
<b>F1</b>	mm	2,570	2,570	2,570
<b>F2</b>	mm	2,730	2,730	2,730



# Serial Equipment

## Undercarriage

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

## 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
- 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 + DPF + SCR
- Fixed geometry turbocharger
- Fuel pre-filter and water separator
- Intercooler
- Power Pack EU Stage V
- Power Pack non-regulated countries (for select markets)

## Operator's Cab

- 7" 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
- 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 meters, 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 right, 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 (240 V)	+

## Engine

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

## Operator's 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	+
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	+
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	+
Boom cylinder rods protection	+
LIKUFIX for quick coupler SWA 66 hydraulic	+
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	+
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 lighting packages  
Non-exhaustive list, please contact us for further information.

Options and/or special equipments, 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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