

Technical data

≝ Engine

D-1'	0501141(7(0110) -1.3.0000014
Rating per ISO 9249	250 kW (340 HP) at 1,800 RPM
Torque	2,280 Nm at 1,000 RPM
Model	Liebherr D936 A7-25 (Stage V) or
	Liebherr D936 A7-24 (Stage IV)
	or
	Liebherr D936 A7-20 (non-regulated only for select markets)
Туре	6 cylinder in-line
Bore	130 mm
Stroke	150 mm
Displacement	10.51
Engine operation	4-stroke diesel
	Common-Rail, monoturbo
Exhaust gas treatment	DOC + DPF + SCR (Stage V)
	or
	SCR (Stage IV)
	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	7701
Urea tank	961
Electrical system	
Voltage	24V
Batteries	2 x 180 Ah / 12 V
Starter	24V/7.8kW
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

IIyulaulic colliciols	
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 pumps	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 380 l/min.
Max. pressure	350 bar
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	201 l/min.
Max. pressure	375 bar
Pump regulation	Electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation
Hydraulic tank	3941
Hydraulic system	1,350 l with demolition equipment
Filtration	2 full flow filters in return line with integrated fine filter area (5 µm)
Cooling system	Compact cooler for water cooler, after-cooler, fuel cooler and transmission pump oil, sandwiched with cooler for oil and condenser of air-conditioning with hydrostatically controlled fan drives
MODE selection	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for espe- cially economical and environmentally friendly operation or for maximum digging performance and heavy-duty iobs
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	380 l/min.
Pressure	350 bar
Attachment rotation system	
Flow	301/min.
Pressure	180 bar



\bigcirc 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
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	Arm consoles, swinging with the seat
Operation and displays	Large high-resolution colour display with intuitive opera- tion 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 fully controlled on the display, 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 outside and standing on the ground. 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	1.80t
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	72 dB(A) = L _{pA} (inside cab)
2000/14/EC	106 dB(A) = L _{WA} (surround noise)

Undercarriage

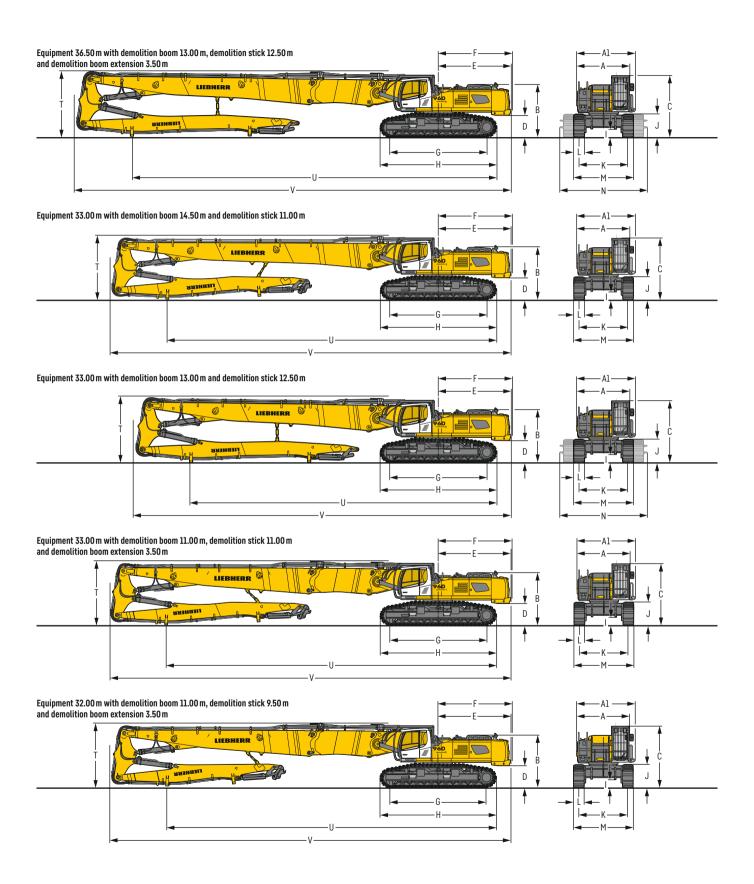
•			
Versions			
VH-HD	Hydraulic variable gauge		
HD-EW	Removable side frames		
Drive	Liebherr swashplate motor with brake valves on both sides		
Transmission	Liebherr compact planetary reduction gear		
Maximum travel speed	2.0 km/h low range		
	3.2 km/h high range		
Drawbar pull on crawler	563 kN		
Track components	D8K, maintenance-free		
Track rollers / Carrier rollers	11/2		
Tracks	Sealed and greased		
Track pads	Double grouser		
Holding brake	Wet multi-disc (spring applied, pressure released)		

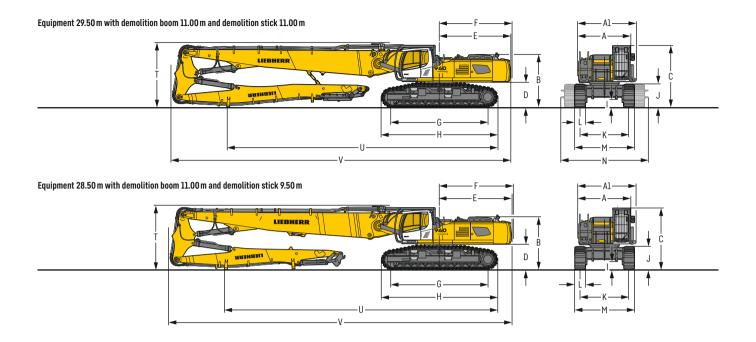


Туре	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with 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

Dimensions





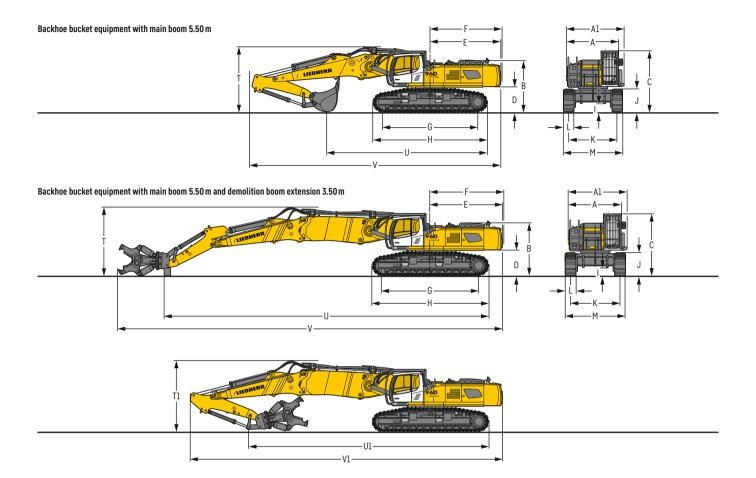
		VH-HD mm	HD-EW mm
Α	Uppercarriage width	2,9853)	2,9853)
A1	Uppercarriage width with catwalks	3,380	3,380
В	Uppercarriage height	3,055	3,115
С	Cab height	3,600	3,660
D	Counterweight ground clearance	1,275/1,445 ²⁾	1,335/1,505 ²⁾
E	Rear-end length	4,235/4,1552)	4,235 / 4,1552)
F	Tail swing radius	4,280 / 4,2002)	4,280 / 4,2002)
G	Wheelbase	5,610	5,605
Н	Undercarriage length	6,725	6,725
1	Undercarriage ground clearance	490	490
J	Track height	1,340	1,380
K	Track gauge	2,850/4,0504)	4,000
L	Track pad width	600	500 600 750
М	Width over tracks	3,500 /4,8204)	4,630 4,630 4,750
N	Width over steps	3,8851) / 5,0851) 4)	5,0501) 5,0501) 5,0501)

		Demolition equipment 36.50 m with demolition boom 13.00 m						Demolition equipment 33.00 m with demolition boom 11.00 m	
		mm		mm		mm		mm	
		VH-HD	HD-EW	VH-HD	HD-EW	VH-HD	HD-EW	VH-HD	HD-EW
T	Boom height	3,850	3,850	3,750	3,800	3,850	3,850	3,750	3,800
U	Length on ground	19,200	19,200	19,200	19,200	19,200	19,200	19,200	19,200
٧	Overall length	23,400	23,400	23,400	23,400	23,400	23,400	23,400	23,400

		Demolition equipment 32.00 m with demolition boom 11.00 m				Demolition equipment 28.50 m with demolition boom 11.00 m	
		mm		mm		mm	
		VH-HD	HD-EW	VH-HD	HD-EW	VH-HD	HD-EW
T	Boom height	3,750	3,800	3,750	3,800	3,750	3,800
U	Length on ground	19,200	19,200	19,200	19,200	15,750	15,750
V	Overall length	23 400	23 400	23 400	23 400	19 850	19.850

 ¹⁾ width with removable steps
 ²⁾ length with equipment 28.50 m
 ³⁾ without door stop device and spacer
 ⁴⁾ work position

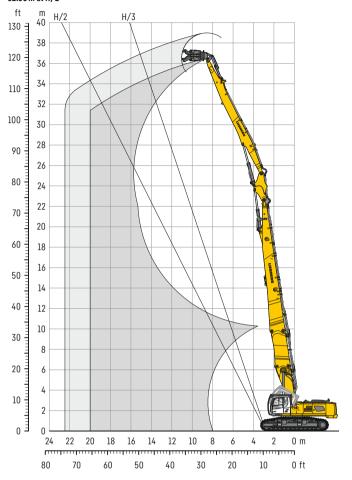
Dimensions



		Stick length	Backhoe bucket equipment		Backhoe bucket equipment with de	molition boom extension
		m	mm		mm	
			VH-HD	HD-EW	VH-HD	HD-EW
T	Boom height	2.35	3,950	3,950	-	-
		2.90	4,050	4,050	3,950	3,950
T1		2.90	-	-	4,100	4,100
U	Length on ground	2.35	9,450	9,450	-	-
		2.90	9,000	9,000	18,750	18,750
U1		2.90	-	-	13,900	13,900
٧	Overall length	2.35	14,800	14,800	_	-
		2.90	14,800	14,800	22,250	22,250
V1		2.90	-	-	18,050	18,050

Demolition equipment 36.50 m

with demolition boom extension $3.50\,\mathrm{m}$ $32.00\,\mathrm{m}$ at H/2



Reach limitation

		16 m	18 m	20 m
Demolition boom extension 3.50 m				
Demolition boom 13.00 m Intermediate boom Demolition stick 12.50 m (kinematic 932)			tachme weight t	
VH-HD undercarriage	lengthwise	3.50	2.50	1.75
	transverse	1.75	1.75	-
HD-EW undercarriage	lengthwise	2.75	2.25	1.75
	transverse	150	_	_

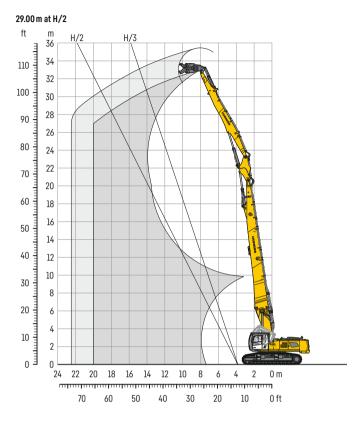
^{*} included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.8 t and 4 t removable, demolition boom extension 3.50 m, demolition boom 13.00 m, intermediate boom 2.60 m, demolition stick 12.50 m and attachment 3.5 t.

Undercarriage		VH-	-HD	HD-EW		
Pad width	mm	600	750	600	750	
Weight	kg	98,100	99,300	93,200	94,400	
Ground pressure	kg/cm ²	1.36	1.10	1.30	1.05	

Demolition equipment 33.00 m



Reach limitation

		14 m	16 m	18 m	20 m
Demolition boom 14.50 m					
+ Intermediate boom		Atta	achmei	nt weig	ght*
+ Demolition stick 11.00 m (kinematic 932)			1	t '	
VH-HD undercarriage	lengthwise	3.50	3.50	3.50	3.50
ř	transverse	3.50	3.50	3.00	2.50
HD-EW undercarriage	lengthwise	3.50	3.50	3.50	3.50
-	transverse	3.50	3.50	3.00	2.25
		14 m	16	m	18 m
Demolition boom 14.50 m					
+ Intermediate boom		Atta	chmei	nt wei	aht*
+ Demolition stick 11.00 m (kinematic 946)			1	•	,
VH-HD undercarriage	lengthwise	4.00		00	4.00
	•				3.00
•	transverse	4.00	3.	50	3.00
HD-EW undercarriage	•		3.! 4.0	50 00	3.00 4.00 2.70

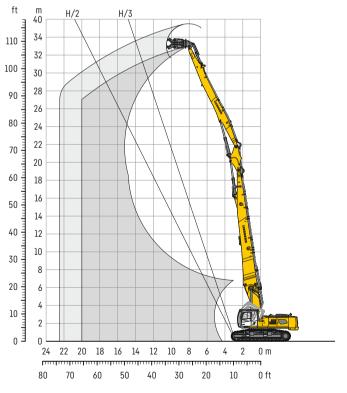
^{*} included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.8t and 4t removable, demolition boom 14.50 m, intermediate boom 2.60 m, demolition stick 11.00 m and attachment 3.5 t.

Undercarriage		VH-HD		HD-	EW
Pad width	mm	600	750	600	750
Weight	kg	93,500	94,700	88,600	89,800
Ground pressure	ka/cm ²	1.30	1.05	1.23	1.00

29.00 m at H/2



Reach limitation

		16 m	18 m	20 m
+ Demolition boom 13.00 m		Attachment		
+ Intermediate boom		١	weight	*
+ Demolition stick 12.50 m (kinematic 932)			ť	
VH-HD undercarriage	lengthwise	3.50	3.50	3.50
	transverse	3.50	3.00	2.50
HD-EW undercarriage	lengthwise	3.25	3.25	2.50
	transverse	2.50	2.00	-

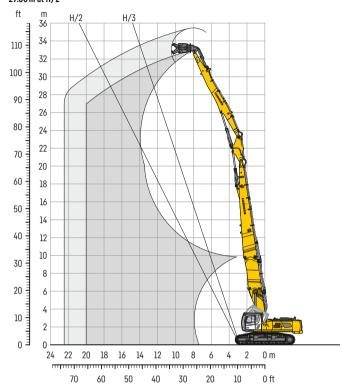
^{*} included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.8t and 4t removable, demolition boom 13.00 m, intermediate boom 2.60 m, demolition stick 12.50 m and attachment 3.5 t.

Undercarriage		VH-	-HD	HD-EW		
Pad width	mm	600	750	600	750	
Weight	kg	93,600	94,800	88,700	89,900	
Ground pressure	ka/cm²	1.30	1.05	1 23	1.00	

with demolition boom extension 3.50 m $29.00\,\text{m}$ at H/2



Reach limitation

Demolition boom extension 3.50 m + Demolition boom 11.00 m		14 m	16 m	18 m	20 m
+ Intermediate boom + Demolition stick 11.00 m (kinematic 932)		Atta	achme	nt weig t	jht*
VH-HD undercarriage	lengthwise	3.50	3.50	3.50	3.50
	transverse	3.50	3.50	2.75	2.25
HD-EW undercarriage	lengthwise	3.50	3.50	3.50	3.00
	transverse	3.50	3.50	2.50	2.00

		14 m	16 m	18 m
Demolition boom extension 3.50 m				
+ Demolition boom 11.00 m				
+ Intermediate boom		Attachment weight*		
+ Demolition stick 11.00 m (kinematic 946)			t	-
VH-HD undercarriage	lengthwise	4.00	4.00	4.00
·	transverse	4.00	3.50	2.80
HD-EW undercarriage	lengthwise	4.00	4.00	4.00
-	transverse	4.00	3.25	2.50

^{*} included quick coupler, adapter plate and attachment

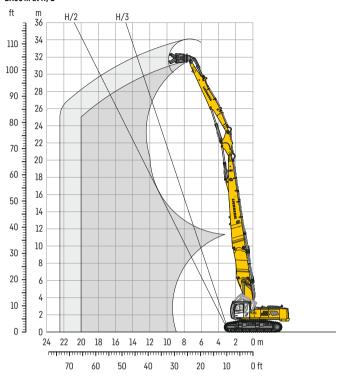
Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.8 t and 4 t removable, demolition boom extension 3.50 m, demolition boom 11.00 m, intermediate boom 2.60 m, demolition stick 11.00 m and attachment 3.5 t.

Undercarriage		VH-	-HD	HD-EW		
Pad width	mm	600	750	600	750	
Weight	kg	96,500	97,700	91,600	92,800	
Ground pressure	kq/cm ²	1.34	1.08	1.27	1.03	

Demolition equipment 32.00 m

with demolition boom extension 3.50 m $27.50\,\mathrm{m}$ at H/2



Reach limitation

		14 m	16 m	18 m	20 m
Demolition boom extension 3.50 m					
+ Demolition boom 11.00 m					
+ Intermediate boom		Att	achme	nt weig	ıht*
+ Demolition stick 9.50 m (kinematic 932)				t	
VH-HD undercarriage	lengthwise	3.50	3.50	3.50	3.25
	transverse	3.50	3.50	3.00	2.25
HD-EW undercarriage	lengthwise	3.50	3.50	3.50	3.25
-	transverse	3.50	3.25	2.50	2.00

^{*} included quick coupler, adapter plate and attachment

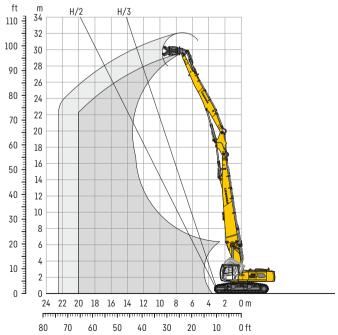
Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.8 t and 4 t removable, demolition boom extension 3.50 m, demolition boom 11.00 m, intermediate boom 2.60 m, demolition stick 9.50 m and attachment 3.5 t.

Undercarriage		VH-	-HD	HD-EW		
Pad width	mm	600	750	600	750	
Weight	kg	96,000	97,200	91,100	92,300	
Ground pressure	kg/cm ²	1.33	1.07	1.26	1.03	

Demolition equipment 29.50 m

25.50 m at H/2



Reach limitation

		14 M	TOLII	19 M
Demolition boom 11.00 m + Intermediate boom		Attachment weight*		
+ Demolition stick 11.00 m (kinematic 932)			ť	
VH-HD undercarriage	lengthwise	3.50	3.50	3.50
	transverse	3.50	3.50	3.00
HD-EW undercarriage	lengthwise	3.50	3.50	3.50
	transverse	3.50	3.50	2.75

		14 m	16 m	18 m	
Demolition boom 11.00 m + Intermediate boom			Attachment weight*		
+ Demolition stick 11.00 m (kinematic 946)			t		
VH-HD undercarriage	lengthwise	4.00	4.00	4.00	
	transverse	4.00	4.00	3.00	
HD-EW undercarriage	lengthwise	4.00	4.00	4.00	
	transverse	4.00	3.50	2.50	

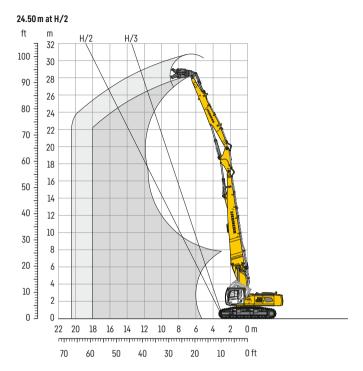
^{*} included quick coupler, adapter plate and attachment

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight $11.8\,\mathrm{t}$ and $4\,\mathrm{t}$ removable, demolition boom $11.00\,\mathrm{m}$, intermediate boom $2.60\,\mathrm{m}$, demolition stick $11.00\,\mathrm{m}$ and attachment $3.5\,\mathrm{t}$.

Undercarriage		VH-	-HD	HD-	EW
Pad width	mm	600	750	600	750
Weight	kg	91,900	93,100	87,000	88,200
Ground pressure	kg/cm ²	1.28	1.04	1.21	0.98

Demolition equipment 28.50 m



Reach limitation

		12 m	14 m	16 m	18 m
+ Demolition boom 11.00 m					
+ Intermediate boom		Atta	achme	nt weig	ht*
+ Demolition stick 9.50 m (kinematic 932)			1	t	
VH-HD undercarriage	lengthwise	3.50	3.50	3.50	3.50
	transverse	3.50	3.50	3.50	2.75
HD-EW undercarriage	lengthwise	3.50	3.50	3.50	3.50
	transverse	3.50	3.50	3.50	2.50

^{*} included quick coupler, adapter plate and attachment

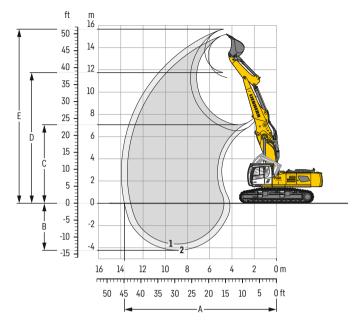
Operating weight and ground pressure

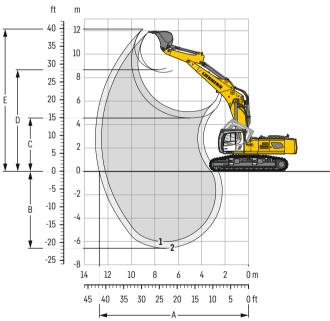
The operating weight includes the basic machine with counterweight 11.8 t, demolition boom 11.00 m, intermediate boom 2.60 m, demolition stick 9.50 m and attachment 3.5 t.

Undercarriage		VH	-HD	HD-	-EW
Pad width	mm	600	750	600	750
Weight	kg	87,500	88,700	82,600	83,800
Ground pressure	kg/cm ²	1.22	0.98	1.15	0.93

Backhoe bucket

with main boom 5.50 m





Digging envelope

Main boom pinned in upper (in lower) bearing

		1	2
Stick length	m	2.35	2.90
A Max. reach at ground level	m	13.10 (12.10)	13.65 (12.65)
B Max. digging depth	m	3.70 (6.20)	4.25 (6.75)
C Min. dumping height	m	7.05 (5.05)	6.50 (4.50)
D Max. dumping height	m	11.30 (8.10)	11.80 (8.30)
E Max. cutting height	m	15.20 (11.45)	15.65 (11.70)

Forces

		1	2
Stick digging force (ISO 6015)	kN	248	217
Bucket digging force (ISO 6015)	kN	313	313
Stick digging force (SAE J1179)	kN	233	206
Bucket digging force (SAE J1179)	kN	269	269

Max. bucket digging force ISO

345 kN

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.5 t, main boom $5.50\,m$, HD stick $2.35\,m$ and HD bucket $2.35\,m^3$ ($3.050\,kq$).

Undercarriage		VH-	-HD	HD-	EW
Pad width	mm	600	750	600	750
Weight	kg	82,200	83,400	77,300	78,500
Ground pressure	kg/cm ²	1.14	0.93	1.07	0.87

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



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

Max. material weight \triangle = $\leq 2.0 \text{ t/m}^3$, \blacksquare = $\leq 1.8 \text{ t/m}^3$, \blacksquare = $\leq 1.5 \text{ t/m}^3$

Lift capacities

with main boom 5.50 m (pinned in upper bearing), counterweight 13.5 t and track pads 600 mm

Stic	k 2.3	5 m													Stic	k 2.9	0 m											
. 8	1 1	4.	5 m	6.0) m	7.9	5 m	9.	0 m	10.	.5 m	1	~ <u>c</u>		. e	12	4.5	m	6.0 m	7.	5 m	9.0) m	10.	5 m	1	~ <u>p</u>	3
Under- carriage	m 1	5	Ŀ	-5	į,	-5	Ŀ	50	Ŀ	-5	Ġ	5	ď,	m	Under- carriage	m m	5)	ď	-5 6		Ŀ	5	Ŀ		Ŀ	-5	J.	m
	13.5				uuu				uuu				000			13,5		550			uuu.					12.5*	12.5*	5.0
	12.0			17.4*	17.4*							12.5*	12.5*	6.6		12,0			14.6* 14.6*							9.3*	9.3*	7.5
	10.5			18.1*	18.1*	17.3*	17.3*					10.6*	10.6*	8.4		10,5			14.2* 14.2*	14.3*	14.3*	9.4*	9.4*			8.1*	8.1*	9.1
	9.0	21.5*	21.5*	20.5*	20.5*	19.7*	19.7*	16.3*	16.3*			9.6*	9.6*	9.6		9,0			15.2* 15.2*	15.4*	15.4*	14.3*	14.3*			7.4*	7.4*	10.2
۵	7.5			28.6*	28.6*	23.3*	23.3*	19.3	20.3*			9.1*	9.1*	10.4	۵	7,5			27.1* 27.1*	19.6*	19.6*	16.8*	16.8*	12.5*	12.5*	7.0*	7.0*	11.0
VH-HD	6.0					24.4	25.0*	18.7	21.1*	14.9	17.0*	8.9*	8.9*	11.0	VH-HD	6,0				24.2*	24.2*	18.9	20.5*	15.0	15.9*	6.9*	6.9*	11.5
>	4.5					23.3	26.7*	18.1	22.0*	14.6	19.1*	8.8*	8.8*	11.3	>	4,5				23.6	26.0*	18.2	21.5*	14.6	18.7*	6.8*	6.8*	11.9
	3.0					22.6	26.3*	17.7	22.6*		19.4*	9.0*	9.0*	11.4		3,0				22.7	27.3*	17.7	22.3*		19.1*	6.9*	6.9*	12.0
	1.5					22.3	24.7*	17.4	22.8*	14.1	19.3*	9.3*	9.3*	11.4		1,5				22.3	27.6*	17.3	22.7*		19.2*	7.2*	7.2*	11.9
	0					22.3	26.4*		22.2*	14.1	18.6*	9.9*		11.1		0				22.1	26.9*	17.2	22.4*	14.0	18.9*	7.6*	-	11.6
	-1.5							17.3	20.8*			15.3	18.5*	9.9		- 1,5				22.2	25.3*	17.2	21.3*	14.0	17.7*	_	16.0*	10.9
	13.5															13,5											12.5*	5.0
	12.0			17.4*								12.5*		6.6		12,0			14.6* 14.6*							9.3*	9.3*	7.5
	10.5					17.3*						10.6*		8.4		10,5			14.2* 14.2*			9.4*	9.4*			8.1*	8.1*	9.1
		21.5*	21.5*				19.7*					9.6*	9.6*	9.6		9,0			15.2* 15.2*			14.3*				7.4*	7.4*	10.2
≥	7.5			28.6*	28.6*		23.3*		20.3*			9.1*	9.1*	10.4	≥	7,5			27.1* 27.1*							7.0*	-	11.0
HD-EW	6.0					22.6		17.3	21.1*	13.7	17.0*	8.9*	8.9*	11.0	HD-EW	6,0				22.9	24.2*		20.5*		15.9*	6.9*		11.5
_	4.5					21.5	26.7*		22.0*		19.1*	8.8*	8.8*	11.3		4,5				21.8	26.0*		21.5*		18.7*	6.8*		11.9
	3.0					20.7	26.3*		22.6*		19.3	9.0*	9.0*	11.4		3,0				20.9	27.3*		22.3*		19.1*			12.0
	1.5					20.4			22.8*		19.1	9.3*	9.3*	11.4		1,5				20.4	27.6*	15.9	22.7*		19.0	7.2*		11.9
	0					20.4	26.4*		22.2*	12.9	18.6*	9.9*	9.9*	11.1		0				20.3	26.9*	15.7	22.4*		18.9*	7.6*		11.6
	- 1.5							15.9	20.8*			14.0	18.5*	9.9		- 1,5				20.4	25.3*	15.8	21.3*	12.9	17.7*	12.3	16.0*	10.9

with main boom 5.50 m (pinned in upper bearing), counterweight 13.5 t and track pads 600 mm

Stic	k 2.3	55 m							Sti	ck 2.9	70 m						
<u>. e</u>	Î DE	4.5 m	6.0 m	7.5 m	9.0 m	10.5 m		企	. 9		4.5 m	6.0 m	7.5 m	9.0 m	10.5 m		þ
Under- carriage	m m	b	B	-5 6	j	j	-50 E	ů,	Under-	m m	B		<u>-</u>	-5	الم هـ		
_ 0	10.5		"ded bed		Total band	"ded bed	-ded t	bed I		10.5	"diad band	-ded bed	-ded beed		-ded beed	7.6* 7.6*	7.9
	9.0			16.7* 16.7*			9.1* 9	9.1*	3.5	9.0				8.6* 8.6*		7.0* 7.0*	9.1
	7.5				14.8* 14.8*	*			2.5	7.5			16.7* 16.7*	14.0* 14.0*		6.7* 6.7*	10.0
	6.0		24.8* 24.8*).1	6.0		22.8* 22.8*			8.4* 8.4*	6.7* 6.7*	10.6
0	4.5			22.5* 22.5*						4.5			21.4* 21.4*			6.8* 6.8*	11.0
VH-HD	3.0			23.9 25.0*	18.5 20.7	* 11.6* 11.6*	9.2* 9	9.2* 10	1.6 1.6 1.5	3.0				18.6 19.9*		7.1* 7.1*	11.1
>	1.5			23.3 26.8*	18.1 22.0	* 10.2* 10.2*	9.9* 9	9.9* 10).5	1.5		16.0* 16.0*	23.4 26.1*	18.1 21.4*	14.6 16.7*	7.6* 7.6*	11.0
	0		19.7* 19.7*	23.0 27.9*	17.9 22.9	*	10.9* 10	0.9* 10	1.2	0		21.7* 21.7*	23.0 27.4*	17.8 22.5*	13.5* 13.5*	8.3* 8.3*	10.7
	-1.5		32.3 33.6*	23.0 28.2*	17.8 23.2	*	12.7* 12	2.7*	2.7	-1.5	14.9* 14.9*	31.1* 31.1*	22.9 28.0*	17.7 23.0*		9.5* 9.5*	10.2
	-3.0		32.6 34.1*	23.2 27.4*			15.8* 15	5.8*	3.8	-3.0	25.3* 25.3*	32.3 34.8*		17.8 22.7*		11.5* 11.5*	9.4
	-4.5									-4.5			23.4 25.9*			21.6 24.2*	7.9
	10.5									10.5						7.6* 7.6*	7.9
	9.0			16.7* 16.7*					3.5	9.0				8.6* 8.6*		7.0* 7.0*	9.1
	7.5				14.8* 14.8*				2.5	7.5			16.7* 16.7*			6.7* 6.7*	10.0
	6.0		24.8* 24.8*		17.8* 17.8				0.1	6.0		22.8* 22.8*		16.8* 16.8*		6.7* 6.7*	10.6
ĕ	4.5			22.5* 22.5*					1.5 1.6 1.5	4.5			21.4* 21.4*			6.8* 6.8*	11.0
HD-EW	3.0			22.1 25.0*		11.6* 11.6*).6 =	3.0		16.1* 16.1*		17.2 19.9*		7.1* 7.1*	11.1
_	1.5		10.7* 10.7*	21.5 26.8*				9.9* 10		1.5						7.6* 7.6*	11.0
	0		19.7* 19.7*		16.4 22.9		10.9* 10).2).7	0	1/0* 1/0*	21.7* 21.7*			13.3 13.5*	8.3* 8.3*	10.7
	-1.5 -3.0		29.7 33.6* 30.0 34.1*	21.1 28.2* 21.3 27.4*			12.7* 12 15.8* 15		3.8	-1.5 -3.0	14.9* 14.9* 25.3* 25.3*	29.5 31.1* 29.7 34.8*		16.3 23.0* 16.4 22.7*		9.5* 9.5* 11.5* 11.5*	10.2 9.4
	- 3.U - 4.5		30.0 34.1	21.5 27.4			15.6 15	J.0 0	0.0	- 5.U - 4.5	20.5 20.5	27.7 34.8	21.1 27.7	10.4 22.7		19.9 24.2*	7.9
		I	I	I	1	1	ı			-4.3	1	I	21.5 23.9	l	I	17.7 24.2	1.7
	4				0												

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 825 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

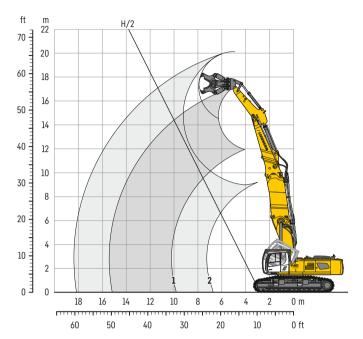
According to European Standard, EN 474-5: In the European Union excavators have to be equipped with an overload warning device, a load diagram and automatic safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

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.

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

Backhoe bucket

with main boom 5.50 m and demolition boom extension 3.50 m $\,$



Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 13.5 t, main boom 5.50 m, demolition boom extension 3.50 m, HD stick 2.90 m and attachment* 4.25 t.

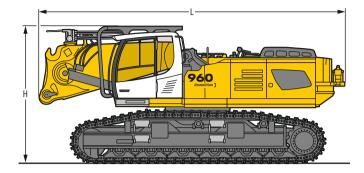
Undercarriage		VH-	-HD	HD-	-EW
Pad width	mm	600	750	600	750
Weight	kg	88,000	89,200	83,000	84,200
Ground pressure	kg/cm ²	1.22	0.99	1.15	0.94

^{*} included quick coupler, adapter plate and attachment

¹ reach at stick end

² reach at attachment end

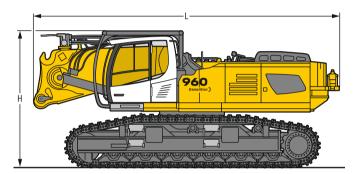
Dimensions and weights



Basic machine

without counterweight with cab tiltable 30° and integral protection grid

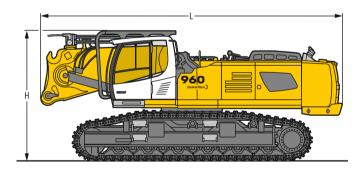
		VH-HD	HD-EW
L	mm	8,100	8,100
Н	mm	3,600	3,660
Weight	kg	59,100	54,100



Basic machine

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

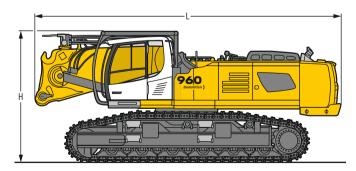
	V	H-HD	HD-EW
L	mm	8,100	8,100
Н	mm :	3,600	3,660
Weight	kg 5	9,500	54,500



Basic machine

with counterweight 11.8 t and 4 t removable, cab tiltable 30° and integral protection grid

	VH-	HD	HD-EW
L	mm 8,4	50	8,450
Н	mm 3,0	00	3,660
Weight	kg 75,	00	70,100

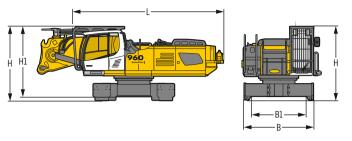


Basic machine

with counterweight 11.8 t and 4 t removable, cab tiltable 30° and integral protection grid on tilting device

	VH-H	ID HD-EW
L	mm 8,45	50 8,450
Н	mm 3,60	00 3,660
Weight	kg 75,50	00 70,500

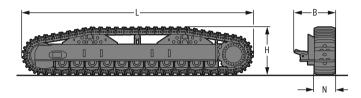
Dimensions and weights



Basic machine

without side frames

В		mm	3,200
B1		mm	3,035
L	Length	mm	6,550
H I	Height	mm	2,990
H1 !	Height	mm	2,360
1	Weight	kg	30,100



Side frame for HD-EW undercarriage

L	Length	mm			6,725
Н	Height	mm			1,380
N		mm	500	600	750
В		mm	1,200	1,200	1,260
	Weight	kg	11,200	11,700	12,300



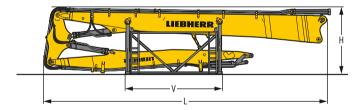
Counterweight

L Length	mm	1,035
H Height	mm	1,290
Width	mm	2,970
Weight	kg	11,800



Additional counterweight

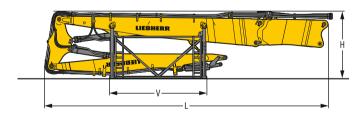
LI	Length	mm	1,115
H H	Height	mm	350
١	Width	mm	2,990
١	Veight	kg	4,000



Demolition equipment

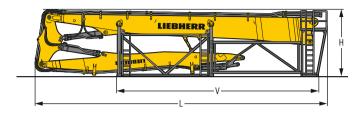
with storage rack

	•				
			29.50 m	33.00 m	36.50 m
L	Length	mm	12,050	15,510	14,050
Н	Height	mm	3,600	3,600	3,850
٧		mm	5,270	5,270	5,270
	Width	mm	2,410	2,410	2,410
	Weight without attachment	kn	14 400	17 000	16.450



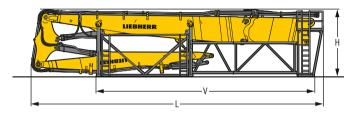
$\begin{tabular}{ll} \textbf{Demolition equipment with demolition boom extension} \\ \textbf{with storage rack} \\ \end{tabular}$

			29.50 m	33.00 m
L	Length	mm	15,550	17,550
Н	Height	mm	3,600	3,850
٧		mm	5,270	5,270
	Width	mm	2,410	2,410
	Weight without attachment	kg	19,000	20,250



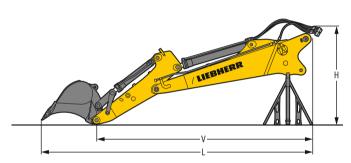
Demolition equipment with storage rack with catwalks

		29.50 m	33.00 m	36.50 m
L Length	mm	12,510	15,990	17,970
H Height	mm	3,600	3,600	3,850
V	mm	8,450	11,010	12,650
Width	mm	2,490	2,490	2,490
Weight without attachment	kg	15,350	18,050	21,500



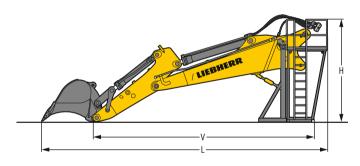
$\begin{tabular}{ll} \textbf{Demolition equipment with demolition boom extension} \\ \textbf{with storage rack with catwalks} \\ \end{tabular}$

	•		
			29.50 m
L	Length	mm	15,990
Н	Height	mm	3,600
٧		mm	11,920
	Width	mm	2,490
	Weight without attachment	kg	20,200



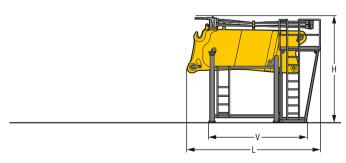
Backhoe equipment with storage rack

							
	Main boom length	m	5.	.50			
	Stick length	m	2.35	2.90			
L	Length	mm	9,960	10,540			
Н	Height	mm	3,600	3,600			
٧		mm	7,700	8,270			
	Width	mm	2,250	2,250			
	Weight without bucket	kg	8,810	9,100			



Backhoe equipment with storage rack with catwalks

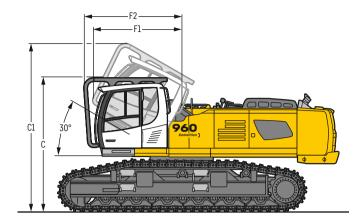
	Main boom length	m	5.	.50
	Stick length	m	2.35	2.90
L	Length	mm	9,480	10,060
Н	Height	mm	3,600	3,600
٧		mm	7,700	8,270
	Width	mm	2,500	2,500
	Weight without bucket	kg	8,810	8,970



Demolition boom extension with storage rack with catwalks

L	Length	mm	4,630
Н	Height	mm	3,650
٧		mm	3,380
	Width	mm	2,490
	Weight	kg	5,550

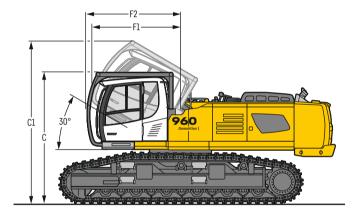
Choice of cab elevations



Version

with cab tiltable 30° and integral protection grid

	VI	H-HD	HD-EW
C	mm 3	,600	3,660
C1	mm 4	,520	4,580
F1	mm 2	,415	2,415
F2	mm 2	2,650	2,650



 $\begin{tabular}{ll} \textbf{Version} \\ \textbf{with cab tiltable 30° and integral protection grid on tilting device} \\ \end{tabular}$

		VH-HD	HD-EW
C	mm	3,600	3,660
C1	mm	4,440	4,580
F1	mm	2,450	2,415
F2	mm	2,605	2,650

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)



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 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 multicouplers for demolition boom and backhoe equipment

^{*} optionally extendable after one year

All illustrations and data may differ from standard equipment. Subject to change without notice. All indicated loads are based in accordance with ISO 9248. RG-BK \cdot LFR/SP-12246798-web-11.25_enGB

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-EW	+
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 (240 V)	+

Engine

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

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	+
Auxilary 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	+

6

Equipment

_	Equipmont	
Boo	om bottom protection	+
Boo	om cylinders rod protection	+
	cket cylinder rod protection for backhoe equipment	+
Car	mera for equipment	+
Cer	ntralised lubrication extended for connecting link for backhoe equipment	+
	ging system for backhoe equipment	+
	ging system for demolition equipment	+
Hea	adlight on boom, on each side, LED, 1 piece, protection included	●1)
	adlight on boom, on each side, LED+, 1 piece, protection included	+1)
Hea	adlights on equipment, LED, 4 pieces, protections included	•
	adlights on equipment, LED+, 4 pieces, protections included	+
	h pressure circuit for backhoe equipment	+
	dium pressure circuit for backhoe equipment	+
	erload warning system	+
	e fracture safety valve for stick cylinder for backhoe equipment	+
	ick coupler for standard boom	+
	ick coupler SWA 66 hydraulic	+
	ick coupler SWA 66 mechanical	+
	idlink for quick coupler SWA 66 hydraulic	+
	indard boom with quick change coupling	+
	ck bottom protection	+
	rage rack with catwalks	+
Too	ol Management	+

• = Standard, + = Option

 $^{1\! 1}$ 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

2 avenue Joseph Rey, B.P. 90287 • 68005 Colmar Cedex, France • Phone +33 389 213030 info.lfr@liebherr.com • www.liebherr.com • www.facebook.com/LiebherrConstruction