# Wheeled Excavator

# A 924 Heavy Lift

Litronic



# LIEBHERR

# **Technical Data**

# Diesel Engine

	, -	
Rating per ISO 9249	160 kW (217 HP) at 1,700 RPM	
lodel Liebherr D934		
Туре	4 cylinder in-line	
Bore/Stroke	122/150 mm	
Displacement	7.0	
Engine operation	4-stroke diesel Common-Rail	
	turbo-charged and after-cooler	
	reduced emissions	
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements	
Engine idling	sensor controlled	
Electrical system		
Voltage	24 V	
Batteries	2 x 135 Ah/12 V	
Alternator	three-phase current 28 V/140 A	
Stage IV		
Harmful emissions values	in accordance with 97/68/EG stage IV	
Emission control	Liebherr-SCR technology	
Fuel tank	330 I	
Urea tank	46 I	

# **⇒** Cooling System

Diesel engine	water-cooled
	compact cooling system consisting cooling unit for
	water, hydraulic oil and charge air with stepless
	thermostatically controlled fan

# ■ Hydraulic Controls

•	
Power distribution	via control valves in single block with integrated safety valves
Servo circuit	
Attachment and swing	with hydraulic pilot control and proportional joystick levers
Chassis	electroproportional via foot pedal
Additional functions	via switch or electroproportional foot pedals
Proportional control	proportionally acting transmitters on the joysticks for additional hydraulic functions

। ध Hydraulid	System	
Hydraulic pump		
for attachment	2 Liebherr axial piston variable displacement pumps	
and travel drive	(double construction) 2 x 231 l/min.	
Max. flow		
Max. pressure	350 bar, PowerLift 380 bar	
for swing drive	reversible axial piston variable displacement pump, closed-loop circuit	
Max. flow	140 l/min.	
Max. pressure	420 bar	
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque controlled swing drive priority	
Hydraulic tank	175 l	
Hydraulic system	max. 430 I	
Hydraulic oil filter	1 main return filter with integrated partial micro filtration (5 $\mu$ m)	
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	
S (Sensitive)	mode for precision work and lifting through very sensitive movements	
E (Eco)	mode for especially economical and environmentally friendly operation	
P (Power)	mode for high performance with low fuel consumption	
P+ (Power-Plus) mode for highest performance and for very he applications, suitable for continuous operation		
Engine speed and	stepless alignment of engine output and hydraulic	
performance setting	power via engine speed	
Option	Tool Control: ten preadjustable pump flows and pressures for add on tools	

# Swing Drive

•		
Drive	Liebherr axial piston motor in a closed system, Liebherr planetary reduction gear	
Swing ring  Liebherr, sealed race ball bearing swing internal teeth		
Swing speed	0 – 9.5 RPM stepless	
Swing torque	76 kNm	
Holding brake	<b>blding brake</b> wet multi-disc (spring applied, pressure released)	
Option	pedal controlled positioning swing brake	

# Operator's Cab

Cab
ROPS safety cab structure (roll-over protection system) with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sound-damping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen
air cushioned operator's seat with 3D-adjustable arm- rests, headrest, lap belt, seat heater, manual weight adjustment, adjustable seat cushion inclination and length and mechanical lumbar vertebrae support
in addition to operator's seat standard: lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatisation with active coal
in addition to operator's seat comfort: active electronic weight adjustment (automatic readjustment), pneu- matic low frequency suspension and active seat clima- tisation with active coal and ventilator
joysticks with arm consoles and swivel seat, folding left arm console
large high-resolution operating unit, selfexplanatory, colour display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and tool parameters
automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; recirculated 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

# •=• Undercarriage

	9-	
<b>Drive</b> oversized two speed power shift transmission additional creeper speed, Liebherr axial piston with functional brake valve on both sides		
Pulling force	ng force 135 kN	
Travel speed	0 - 3.5 km/h stepless (creeper speed off-road) 0 - 7.0 km/h stepless (off-road)	
	0 – 13.0 km/h stepless (creeper speed on-road) 0 – 20.0 km/h stepless (road travel)	
<b>Driving operation</b> automotive driving using accelerator pedal, cru control function: storage of variable accelerator positions, both off-road and on-road		
Axles	manual or automatic hydraulically controlled front axle oscillation lock	
Service brake	ke two circuit travel brake system with accumulator; wet and backlash-free disc brake	
Automatic digging brake	works automatically when driving off (accelerator pedal actuation) and when the machine is stationary (engage- ment); the digging brake engages automatically – can be coupled with automatic swing axle lock	
Holding brake	wet multi-disc (spring applied, pressure released)	
Stabilization	stabilizing blade rear + 2 point outriggers front stabilizing blade front + 2 point outriggers rear 4 point outriggers	
EW-undercarriage	2.75 m/9'	

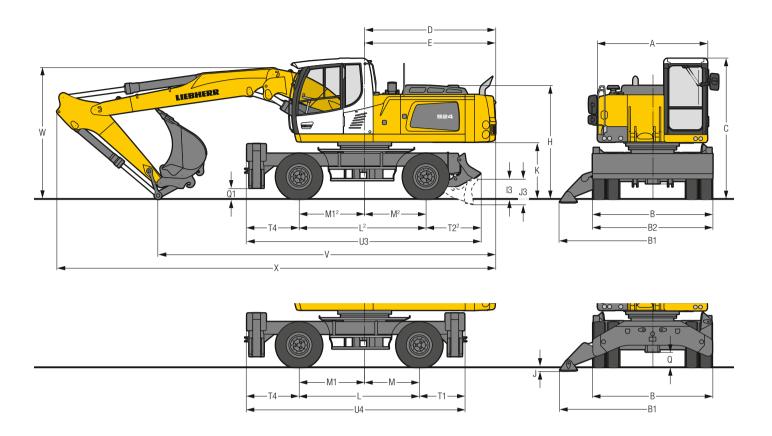
# **Attachment**

Туре	high-strength steel plates at highlystressed points for the toughest requirements. Complex and stable mountings of attachment and cylinders
Hydraulic cylinders	Liebherr cylinders with special seal system as well as shock absorption
Bearings sealed, low maintenance	

# Complete Machine

Lubrication Liebherr central lubrication system for upper and attachment, automatically	
Noise emission	
ISO 6396	$L_{pA}$ (inside cab) = 72 dB(A)
2000/14/EC	L <sub>WA</sub> (surround noise) = 104 dB(A)

# **Dimensions**



_	mm
Α	2,525
В	2,750
B1	4,260
B2	2,750
C	3,220
D	3,030
E	3,030
Н	2,605
13	465
J	80
J3	590
K	1,280
L	2,750
L2)	2,900
M	1,250
M <sup>2</sup> )	1,400
M1	1,500
M1 <sup>2)</sup>	1,500
Q	350
Q1	250
T1	1,040
<b>T2</b> <sup>2)</sup>	1,410
T4	1,190
U3	5,350
U4	4,980

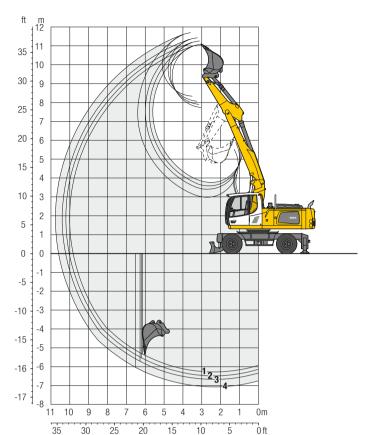
U4	
2) Und	ercarriage-2 point outriggers front, stabilizing blade rear
E = Ta	ail radius
Tyres	11.00-20

	Stick	Two-piece boom 5.80 m HD	
	Otion	2 pt. outriggers + blade	4 pt. outriggers
	m	mm	mm
V	2.25	7,780	7,780
	2.45	7,330	7,330
	2.65	7,130	7,130
	3.05	6,830	6,830
W	2.25	3,150	3,150
	2.45	3,100	3,100
	2.65	3,100	3,100
	3.05	3,200	3,200
X	2.25	10,180	10,180
	2.45	10,180	10,180
	2.65	10,180	10,180
	3.05	10,180	10,180

Dimensions are with attachment over steering axle

# **Backhoe Bucket**

with Two-Piece Boom 5.80 m HD



### Digging Envelope

with quick coupler		1	2	3	4
Stick length	m	2.25	2.45	2.65	3.05
Max. digging depth	m	6.30	6.50	6.70	7.05
Max. reach at ground level	m	9.85	10.05	10.25	10.60
Max. dumping height	m	7.75	7.90	8.05	8.35
Max. teeth height	m	11.10	11.25	11.45	11.70
Min. attachment radius	m	3.25	3.15	3.10	3.15

### Digging Forces

without quick coupler		1	2	3	4
Max. digging force (ISO 6015)	kN	148.5	139.7	131.9	118.8
	t	15.1	14.2	13.4	12.1
Max. breakout force (ISO 6015)	kN	169.6	169.6	169.6	169.6
	t	17.3	17.3	17.3	17.3

Max. breakout force with ripper bucket

218.4 kN (22.3 t)

### Operating Weight

The operating weight includes the basic machine with 8 tyres plus intermediate rings, two-piece boom 5.80 m (HD), stick 2.45 m, quick coupler SW48 and bucket  $1,400 \text{ mm}/1.35 \text{ m}^3$ .

Undercarriage versions	Weight (kg)
A 924 Heavy Lift Litronic with 2 pt. outriggers + stabilizer blade	27,100
A 924 Heavy Lift Litronic with 4 pt. outriggers	27,400

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

Cutting width	Capacity ISO 74511)	Stabilizers (SO 745) (SO 745) (STABILIZERS) (A) (STABILIZERS) (A) (A) (B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C					2 poin	t outriggers do		blade	4 point outriggers down					
Cuttin width	Cap ISO	We		Stick le	ngth (m)			Stick ler	ngth (m)			Stick length (m)				
mm	m³	kg	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05		
8502)	0.75	620						•		•			•			
1,0502)	0.95	710			•			•	•				•			
1,2502)	1.15	810	•	•							•		•			
1,4002)	1.35	850		•			•	•		•	•		•			
1,5002)	1.45	880	•			Δ	•	•	•		•		•			
1,6002)	1.55	940			Δ	Δ	•	•		•	•		•			
8503)	0.75	690	•		•			•		•			•	•		
1,0503)	0.95	800		•	•		•	•		•	•		•			
1,2503)	1.15	910	•	•	•		•	•	•		•		•			
1,4003)	1.35	960						-		•			-	-		
1,5003)	1.45	1,000				Δ	•	•	•		•		•			
1,6003)	1.55	1,060			Δ	Δ		-		•			-	-		
8504)	0.80	630	•	•			•	-	•		•		-	-		
1,0504)	1.05	720						-					•			
1,2504)	1.30	800	•	•			•		•		•		•			
1,4004)	1.50	870				Δ										
1,5004)	1.65	890			Δ	Δ		•		•			•			
1,6004)	1.70	950		Δ	Δ	Δ		-					-			

<sup>\*</sup> Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

Max. material weight  $\blacksquare$  =  $\leq$  1.8 t/m³,  $\blacksquare$  =  $\leq$  1.5 t/m³,  $\triangle$  =  $\leq$  1.2 t/m³, - = not authorised

<sup>1)</sup> comparable with SAE (heaped)

<sup>&</sup>lt;sup>2)</sup> Bucket with teeth <sup>3)</sup> Bucket with teeth in HD-version <sup>4)</sup> Bucket with cutting edge (also available in HD-version)

# **Lift Capacities**

with Two-Piece Boom 5.80 m HD

### Stick 2.25 m

		3.0	m	4.5	m	6.0	m	7.5	m	9.0	m			
14	Under-		1		1		9		<mark>L</mark>		<mark>"</mark>	"	1	-0-
m	carriage	5	밥	5	밥	5	반	<del></del> 5		5	쁩	5	발	m
	Stabilizers raised			7.4*	7.4*							7.1*	7.1*	
9.0	2 pt. + blade down			7.4*	7.4*							7.1*	7.1*	4.6
	4 pt. outriggers down			7.4*	7.4*							7.1*	7.1*	
	Stabilizers raised			8.6*	8.6*	5.9	7.5*					5.2	5.9*	
7.5	2 pt. + blade down			8.6*	8.6*	7.5*	7.5*					5.9*	5.9*	6.4
	4 pt. outriggers down			8.6*	8.6*	7.5*	7.5*					5.9*	5.9*	
	Stabilizers raised			8.9*	8.9*	6.0	8.1	4.0	5.5			4.0	5.4*	
6.0	2 pt. + blade down			8.9*	8.9*	8.4*	8.4*	5.7*	5.7*			5.4*	5.4*	7.5
	4 pt. outriggers down			8.9*	8.9*	8.4*	8.4*	5.7*	5.7*			5.4*	5.4*	
	Stabilizers raised	16.1	16.7*	8.9	11.4*	6.0	7.9	4.1	5.6			3.4	4.7	
4.5	2 pt. + blade down		16.7*		11.4*	8.8	9.0*	6.3	7.7*			5.3*	5.3*	8.2
	4 pt. outriggers down		16.7*		11.4*	9.0*	9.0*	7.7*	7.7*			5.3*	5.3*	
2.0	Stabilizers raised	15.3	16.6*	8.6	11.8	5.9	7.8	4.1	5.6			3.1	4.3	0.0
3.0	2 pt. + blade down		16.6*	13.2	13.3*	8.7	9.8* 9.8*	6.3 7.6	7.9*			4.9 5.4*	5.4* 5.4*	8.6
	4 pt. outriggers down Stabilizers raised	16.6* 15.1	16.9*	13.3* 8.5	13.3* 11.6	9.8* 5.9	7.7	3.9	7.9* 5.4			3.0	4.2	
1.5	2 pt. + blade down	16.9*		13.0	14.2*	8.6	10.3*	6.2	8.1*			4.8	5.8*	8.6
1.5	4 pt. outriggers down	16.9*		14.2*	14.2*	10.3*	10.3*	7.6	8.1*			5.8*	5.8*	0.0
	Stabilizers raised	15.1	19.9*	8.4	11.6	5.6	7.8	3.8	5.3			3.0	4.3	
0	2 pt. + blade down		19.9*	13.0	14.3*	8.7	10.3*	6.0	8.1*			4.9	6.4*	8.4
U	4 pt. outriggers down		19.9*		14.3*	10.3	10.3*	7.5	8.1*			6.1	6.4*	0.4
	Stabilizers raised	14.6	22.9	8.1	11.7	5.3	7.4	3.6	5.1			3.3	4.6	
-1.5	2 pt. + blade down			13.3	14.4*	8.5	10.5*	5.8	7.6*			5.3	6.1*	7.9
	4 pt. outriggers down		23.0*	14.4*	14.4*	10.5	10.5*	7.3	7.6*			6.1*	6.1*	
	Stabilizers raised	14.5	23.6	7.8	11.4	5.0	7.1					3.9	5.3*	
-3.0	2 pt. + blade down	23.7*		13.2	14.9*	8.1	9.7*					5.3*	5.3*	7.1
0.0	4 pt. outriggers down		23.7*		14.9*	9.7*	9.7*					5.3*	5.3*	
	Stabilizers raised	14.2	19.3*	7.5	9.8*							6.5	7.4*	
-4.5	2 pt. + blade down	19.3*	19.3*	9.8*	9.8*							7.4*	7.4*	5.0
	4 pt. outriggers down	19.3*	19.3*	9.8*	9.8*							7.4*	7.4*	

### Stick 2.45 m

		3.0	m	4.5	m	6.0	m	7.5	m	9.0	m			
m 1₄	Under- carriage	<b></b> ∰	L	<u></u> ∰	<u>L</u>		L	<del>-4</del>	<u>L</u>	<u>∰</u>	<u>L</u>	<u>4</u>	Ŀ	m
9.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down			7.7* 7.7* 7.7*	7.7* 7.7* 7.7*							6.4* 6.4* 6.4*	6.4* 6.4* 6.4*	4.9
7.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down					6.0 7.4* 7.4*	7.4* 7.4* 7.4*					4.9 5.4* 5.4*	5.4* 5.4* 5.4*	6.7
6.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down			8.0* 8.0* 8.0*	8.0* 8.0* 8.0*	6.0 8.2* 8.2*	8.1 8.2* 8.2*	4.1 6.3 6.3*	5.6 6.3* 6.3*			3.8 5.0* 5.0*	5.0* 5.0* 5.0*	7.8
4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.0* 14.0*	14.0*		11.0* 11.0* 11.0*	5.9 8.8* 8.8*	7.9 8.8* 8.8*	4.1 6.4 7.6*	5.6 7.6* 7.6*			3.2 4.9* 4.9*	4.5 4.9* 4.9*	8.4
3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		16.9* 16.9* 16.9*	8.6 13.0* 13.0*		5.8 8.7 9.6*	7.8 9.6* 9.6*	4.1 6.3 7.6	5.6 7.8* 7.8*			3.0 4.7 5.0*	4.1 5.0* 5.0*	8.8
1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		16.7* 16.7* 16.7*		11.5 14.1* 14.1*	5.8 8.6 10.2*	7.7 10.2* 10.2*	4.0 6.2 7.6	5.5 8.0* 8.0*			2.9 4.6 5.3*	4.0 5.3* 5.3*	8.8
0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		19.4* 19.4* 19.4*	8.4 13.0 14.2*	11.6 14.2* 14.2*	5.6 8.6 10.2	7.8 10.3* 10.3*	3.8 6.0 7.5	5.3 8.0* 8.0*			2.9 4.7 5.8*	4.1 5.8* 5.8*	8.6
-1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.6 22.7* 22.7*	22.7* 22.7* 22.7*	8.1 13.2 14.3*	11.7 14.3* 14.3*	5.3 8.5 10.4	7.5 10.4* 10.4*	3.6 5.8 7.3	5.1 7.9* 7.9*			3.1 5.1 5.9*	4.4 5.9* 5.9*	8.2
-3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		23.4 23.5* 23.5*		11.5 14.8* 14.8*	5.0 8.1 10.1*	7.1 10.1* 10.1*					3.6 5.2* 5.2*	5.2 5.2* 5.2*	7.3
-4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.2 20.8* 20.8*		7.5 11.1* 11.1*								5.6 6.6* 6.6*	6.6* 6.6* 6.6*	5.4

### Stick 2 65 m

1		3.0	) m	45	m	6.0	m	7.5	m	9.0 m				
m	Under- carriage	5	 <u></u>	5	,   <mark>6</mark>	- <del>-</del> 5	,   <mark>4</mark>	<u></u>	 <u>L</u>	- <del>-5</del>	<u></u>	- <del>4</del>		m
9.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down			7.6* 7.6* 7.6*	7.6* 7.6* 7.6*							5.9* 5.9* 5.9*	5.9* 5.9* 5.9*	5.3
7.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down					6.0 7.1* 7.1*	7.1* 7.1* 7.1*					4.6 5.0* 5.0*	5.0* 5.0* 5.0*	7.0
6.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down			7.2* 7.2* 7.2*	7.2* 7.2* 7.2*	6.1 7.7* 7.7*	7.7* 7.7* 7.7*	4.1 6.3 6.5*	5.6 6.5* 6.5*			3.6 4.6* 4.6*	4.6* 4.6* 4.6*	8.0
4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	9.9* 9.9* 9.9*	9.9* 9.9* 9.9*	8.9 9.6* 9.6*	9.6* 9.6* 9.6*	5.9 8.6* 8.6*	7.9 8.6* 8.6*	4.2 6.4 7.4*	5.7 7.4* 7.4*			3.1 4.5* 4.5*	4.3 4.5* 4.5*	8.0
3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		17.3* 17.3* 17.3*		11.7 12.7* 12.7*	5.8 8.6 9.5*	7.7 9.5* 9.5*	4.1 6.3 7.6	5.6 7.7* 7.7*			2.8 4.6 4.6*	4.0 4.6* 4.6*	9.0
1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		16.6* 16.6* 16.6*	8.4 12.9 14.0*	11.5 14.0* 14.0*	5.8 8.5 10.1*	7.6 10.1* 10.1*	4.0 6.2 7.5	5.5 8.0* 8.0*	2.8 4.5 5.2*	3.9 5.2* 5.2*	2.7 4.4 4.8*	3.9 4.8* 4.8*	9.0
0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		19.0* 19.0* 19.0*	8.4 12.9 14.1*	11.5 14.1* 14.1*	5.6 8.6 10.2	7.7 10.2* 10.2*	3.8 6.1 7.5	5.3 8.0* 8.0*			2.8 4.5 5.3*	3.9 5.3* 5.3*	8.8
-1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.6 22.3* 22.3*	22.3* 22.3* 22.3*	8.1 13.1 14.2*	11.7 14.2* 14.2*	5.4 8.6 10.3	7.5 10.3* 10.3*	3.6 5.8 7.3	5.1 8.0* 8.0*			3.0 4.9 5.8*	4.2 5.8* 5.8*	8.
-3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.3 23.3* 23.3*	23.2 23.3* 23.3*	7.9 13.3 14.6*	11.5 14.6* 14.6*	5.0 8.2 10.4*	7.1 10.4* 10.4*	3.5 5.5* 5.5*	5.0 5.5* 5.5*			3.4 5.1* 5.1*	4.9 5.1* 5.1*	7.0
-4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.2 22.1* 22.1*		7.5 12.3* 12.3*								5.0 5.9* 5.9*	5.9* 5.9* 5.9*	5.9

### Stick 3.05 m

1		3.0	m	4.5	m	6.0	m	7.5	m	9.0	m			
m	Under- carriage	5	<u>L</u>	5	d.	<u>5</u>	L	5	<u>L</u>	<u>5</u>	<u>L</u>	·	Ŀ	m
9.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down											4.9* 4.9* 4.9*	4.9* 4.9* 4.9*	5.9
7.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down					6.1 6.4* 6.4*	6.4* 6.4* 6.4*					4.2 4.2* 4.2*	4.2* 4.2* 4.2*	7.4
6.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down					6.1 6.6* 6.6*	6.6* 6.6* 6.6*	4.2 6.1* 6.1*	5.7 6.1* 6.1*			3.3 4.0* 4.0*	4.0* 4.0* 4.0*	8.4
4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down			7.6* 7.6* 7.6*	7.6* 7.6* 7.6*	5.9 7.7* 7.7*	7.7* 7.7* 7.7*	4.3 6.4 7.1*	5.7 7.1* 7.1*	2.9 3.9* 3.9*	3.9* 3.9* 3.9*	2.9 3.9* 3.9*	3.9* 3.9* 3.9*	9.0
3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down		17.9* 17.9* 17.9*	8.6 12.1* 12.1*	11.8 12.1* 12.1*	5.8 8.6 9.1*	7.7 9.1* 9.1*	4.2 6.3 7.5*	5.7 7.5* 7.5*	2.9 4.6 5.6*	4.0 5.6* 5.6*	2.6 4.0* 4.0*	3.7 4.0* 4.0*	9.3
1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	15.0 16.7* 16.7*	16.7* 16.7* 16.7*	8.4 12.9 13.7*	11.5 13.7* 13.7*	5.7 8.5 9.9*	7.6 9.9* 9.9*	4.1 6.3 7.5	5.6 7.8* 7.8*	2.8 4.5 5.6	3.9 6.4* 6.4*	2.6 4.2 4.2*	3.6 4.2* 4.2*	9.4
0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.9 18.3* 18.3*	18.3* 18.3* 18.3*	8.3 12.8 14.0*	11.4 14.0* 14.0*	5.7 8.5 10.1	7.6 10.1* 10.1*	3.9 6.1 7.5	5.4 7.9* 7.9*	2.7 4.4 5.5	3.8 6.1* 6.1*	2.6 4.2 4.5*	3.7 4.5* 4.5*	9.5
-1.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.6 21.4* 21.4*			11.6 14.1* 14.1*	5.4 8.6 10.2	7.6 10.2* 10.2*	3.7 5.9 7.4	5.1 8.0* 8.0*			2.7 4.5 5.2*	3.9 5.2* 5.2*	8.8
-3.0	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.3 23.0* 23.0*	22.9	7.9 13.2 14.4*	11.5 14.4* 14.4*	5.0 8.2 10.4	7.2 10.5* 10.5*	3.5 5.7 6.9*	5.0 6.9* 6.9*			3.1 5.1* 5.1*	4.5 5.1* 5.1*	8.0
-4.5	Stabilizers raised 2 pt. + blade down 4 pt. outriggers down	14.3 23.5*	23.4 23.5*	7.5	11.0 13.7*	4.8 7.7* 7.7*	6.9 7.7* 7.7*					4.2 5.0* 5.0*	5.0* 5.0* 5.0*	6.6

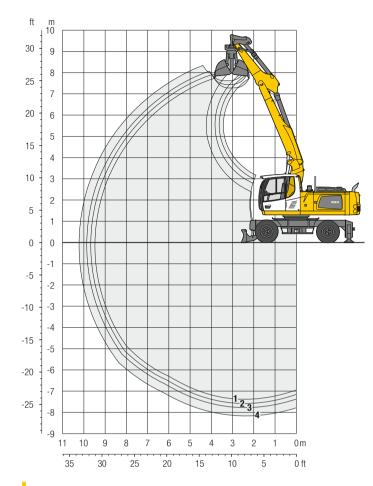
Max. reach \* Limited by hydr. capacity 1 Height → Can be slewed through 360° In longitudinal position of undercarriage

With PowerLift 380 bar the lift capacities on the load lift hook of the Liebherr quick coupler SW48 without working tool are stated in metric tons (t) and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity, or are limited by the permissible load of the load lift hook on the quick coupler (max. 12 t). Without the quick coupler, lift capacities will increase by up to 226 kg.

In accordance with the harmonised European Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe fracture safety valves, an overload warning device, a load lift hook and a lift capacity chart.

# **Clamshell Grab**

with Two-Piece Boom 5.80 m HD



### Digging Envelope

with quick coupler		1	2	3	4
Stick length	m	2.25	2.45	2.65	3.05
Max. digging depth	m	7.35	7.55	7.75	8.15
Max. reach at ground level	m	9.50	9.65	9.85	10.25
Max. dumping height	m	7.30	7.45	7.60	7.90

### Clamshell Grab Model GM 10B

Max	c. tooth force	73 kN (7.4 t)
Max	c. torque of hydr. swivel	1.76 kNm

### Operating Weight

The operating weight includes the basic machine with 8 tyres plus intermediate rings, two-piece boom 5.80 m (HD), stick 2.45 m, quick coupler SW48 and clamshell grab model GM  $10B/1.00 \text{ m}^3$  (1,000 mm without ejector).

Undercarriage versions	Weight (kg)
A 924 Heavy Lift Litronic with 2 pt. outriggers + stabilizer blade	27,200
A 924 Heavy Lift Litronic with 4 pt. outriggers	27,500

# Clamshell Grab Model GM 10B Machine stability per ISO 10567\* (75% of tipping capacity)

hells					ilizers sed		2 poin		+ stabilize wn	r blade		-	utriggers wn		
Width of clamshells	Capacity	Weight		Stick le	ngth (m)			Stick le	ngth (m)		Stick length (m)				
mm	m³	kg	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	
3201)	0.17	770		-	-	-			-	•					
4001)	0.22	820		•		-			•						
6001)	0.35	860				-									
8001)	0.45	910		•		-			•						
1,0001)	0.60	970													
1,0001)3)	1.00	1,040						•							
1,5001)3)	1.50	1,160			Δ	Δ									
1,8001)3)	1.80	1,280	Δ	Δ	_	-		•			•				
3202)	0.17	820													
4002)	0.22	880	•												
6002)	0.30	950													
8002)	0.45	1,010						•			•	•			

<sup>\*</sup> Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

Max. material weight  $\blacksquare = \le 1.8 \text{ t/m}^3$ ,  $\blacksquare = \le 1.5 \text{ t/m}^3$ ,  $\triangle = \le 1.2 \text{ t/m}^3$ , - = not authorised

<sup>1)</sup> without ejector

<sup>2)</sup> with ejector

<sup>3)</sup> Shells for loose material

# **Attachments**

Ditch Cleaning Buckets/Tilt Buckets

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

										-					
ס	acity 7451¹)	51 <sup>1)</sup>	51 <sup>1)</sup>			lizers sed		2 poin		+ stabilizer wn	blade			utriggers wn	
Cutting width	Capac ISO 74	Weight	Stick length (m)				Stick length (m)				Stick length (m)				
mm	$m^3$	kg	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	
Two-p	iece bo	om 5.8	0 m HD												
1,5003)	0.50	430			•				-						
1,6002)	0.80	850			•				-					-	
2,0002)	0.50	690	•	•	-		•		•	•	•	•		-	
2,0003)	0.70	520												-	
2,0002)	0.70	880	•	•	-		•		•	•	•	•	-	-	
2,0003)	1.20	640												-	
2,0002)	1.00	940			•				-				•	-	
2,2002)	0.80	880			•				•			•		-	
2,2002)	1.15	980			•				-				•		
2,2002)	1.40	1,000	•			Δ			•					-	
2,4002)	0.85	890			•						•		•	-	
2,4003)	0.85	610												-	
2,4003)	1.25	1,000											•		

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

		Oito	. Widelinin	o stability p	U 100 1000 <i>1</i>	(10 /0 01 1	ippilig capa	oity)							
ting	acity 7451¹)	9 d	Stabilizers raised				2 point outriggers + stabilizer blade down				4 point outriggers down				
Cuttin width	Cap ISO	Wei		Stick le	ngth (m)			Stick length (m)				Stick length (m)			
mm	$m^3$	kg	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	2.25	2.45	2.65	3.05	
Two-p	iece bo	om 5.8	0 m HD												
1,5002)	1.20	970												-	
1,6002)	0.80	820		•					-	•	•			-	
1,6002)	1.00	890		•		•	•							-	
1,6002)	1.35	970							-					-	
1,6002)	1.55	1,030			Δ	Δ	•	•	•		•		•	-	

<sup>\*</sup> Indicated loads are based on ISO 10567 and do not exceed 75% of tipping or 87% of hydraulic capacity, max. stick length without quick coupler, lifted 360° on firm with blocked oscillating axle

Max. material weight  $\blacksquare$  =  $\leq$  1.8 t/m³,  $\blacksquare$  =  $\leq$  1.5 t/m³,  $\triangle$  =  $\leq$  1.2 t/m³, - = not authorised

<sup>1)</sup> comparable with SAE (heaped)

<sup>2)</sup> with 2 x 50° rotator

<sup>3)</sup> rigid ditch cleaning bucket

# **Equipment**

# •=• Undercarriage

Dual-circuit braking system	•
Tyres (twin tyres) Mitas EM 22	•
Individual control outriggers	+
Travel speed levels (four)	•
Load holding valve on each stabilization cylinder	•
Powershift transmission, semiautomatic	•
Parking brake, maintenance-free	•
Shuttle axle lock, automatic	•
Tyres, variants	+
Protection for piston rods, stabilizer cylinder	+
Undercarriage EW 2.75 m/9'	•
Tool equipment, extended	+
Tool box left – lockable	•
Tool box right – lockable	+
-	

# □**=** Uppercarriage

Uppercarriage right side light, 1 piece, LED	+
Uppercarriage rear light, 2 pieces, LED	+
Refuelling system with filling pump	+
Main battery switch for electrical system	•
Engine hood with gas spring	•
Service doors, lockable	•

# Hydraulic System

Shut-off valve between hydraulic tank and pump(s)	•
Pressure test fittings	•
Accumulator for controlled lowering of the attachment with the engine shut down	•
Hydraulic oil filter with integrated microfilter	•
Liebherr hydraulic oil from -20 °C to +40 °C	•
Liebherr hydraulic oil, biologically degradable	+
Liebherr hydraulic oil, specially for warm or cold regions	+
Bypass filter	+
PowerLift	•
Switchover high pressure circuit 1 and tipping cylinder	+
Switchover high pressure circuit 1 and two-piece boom	+

## Diesel Engine

Fuel anti-theft device	+
Reversible fan drive, fully automatic	+
Air pre-filter with dust discharge	+
Preheating fuel	+

# Operator's Cab

Operator 5 Cab	
Storage compartment	•
Cab lights rear, LED	+
Cab lights front, halogen (under rain cover)	•
Cab lights front, LED (above rain cover)	+
Cab lights front, LED (under rain cover)	+
Mechanical hour meters, readable from outside the cab	•
Roof window made from impact-resistant laminated safety glass	+
Operator's seat Standard	•
Operator's seat Comfort	+
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF)	+
Fire extinguisher	+
Front screen made from impact-resistant laminated safety glass – not adjustable	+
Windscreen retractable (including upper part)	•
Intermittent windscreen wiper with wiper washer	•
Cruise control	•
Rubber floor mat, removable	•
Dome light	•
Joystick steering	+
Coat hook	•
Automatic air conditioning	•
Fuel consumption indicator	•
Electric cooler	+
Steering wheel, wide version (cost-neutral option)	+
Steering column adjustable horizontally	•
LiDAT, vehicle fleet management	•
Automatic engine shut-down (time adjustable)	+
Emergency exit rear window	•
Positioning swing brake	+
Proportional control	+
Radio Comfort, control via display with handsfree set	+
Preparation for radio installation	•
Rain cover over front window opening	•
ROPS cab protection	•
Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off)	+
All tinted windows	•
Windscreen wiper, roof	+
Windshield wiper, entire windscreen	•
Door with sliding window	
Top guard	+
Front guard, adjustable	+
Right side window and windshield made from laminated safety glass Sun visor	
Sun blind	+
Electronic immobilizer	
Cigarette lighter	+
Olyanotto lighto	

# Attachment

Boom lights, 2 pieces, halogen	•
Boom lights, 2 pieces, LED	+
High pressure circuit incl. unpressurised return line and Tool Control	+
Electronic lift limitation	•
Leak oil line, additional for working tools	+
Liebherr ditch cleaning bucket	+
Liebherr quick coupler, hydraulic or mechanical	+
Liebherr tilt bucket	+
Liebherr tilt rotator	+
Liebherr sorting grab	+
Liebherr backhoe bucket	+
Liebherr tooth system	+
Liebherr clamshell grab	+
Medium pressure circuit incl. lines	+
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valve tipping cylinder	+
Pipe fracture safety valve stick cylinder	•
Return line, pressureless (in high pressure circuit option included)	+
Hose quick coupling at end of stick	•
Quick coupling system LIKUFIX	+
Protection for bottom side of stick	+
Tool Control, 10 tool adjustments selectable over the display	+
Overload warning device	•
Two-piece boom, HD version	•

# Complete Machine

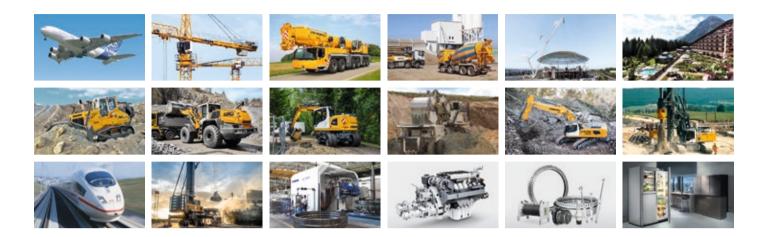
Lubrication	
Lubrication undercarriage, manually – decentralised (grease points)	•
Central lubrication system for uppercarriage and attachment, automatically	
(without quick coupler and connecting link)*	•
Central lubrication system, extension for quick coupler	+
Central lubrication system, extension for connecting link	+
Special coating	
Custom painting for tools	+
Special coating, variants	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	•

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

<sup>• =</sup> Standard, + = Option
\* = country-dependent

# RG-BK-OT LHB/VF 12203974-web-08.16\_enGB All illustrations and data may differ from standard equipment. Subject to change without notice.

# The Liebherr Group of Companies



### **Wide Product Range**

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

### **Exceptional Customer Benefit**

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical applications.

### State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment.

### Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.com