

Railroader

A 900 C ZW

Litronic®

Operating weight: 19,600 - 22,000 kg

Engine output: 105 kW / 143 HP



LIEBHERR

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Engine output: 105 kW / 143 HP

Bucket capacity: 0.24 - 0.95 m³



Performance

The new advanced dual-purpose “Railroader” technology has been realised in the A 900 C ZW Litronic to great effect. It is based on the powerful, large displacement Liebherr engine, which drives two independent pumps as standard. This ensures the availability of a high flow rate in all situations.

Comfort

The well laid out cab provides customised comfort for the driver in every way, while the large windows offer extremely good visibility. This concept is further enhanced by the use of sloping edges and cleverly positioned hoses to guarantee a clear and safe all-round view of the entire site situation.

Economy

Economic efficiency is one of key aims of the “Railroader” concept. The A 900 C ZW Litronic is specifically designed this way, perfectly coordinated to the attachments – such as rammer, tamping machine or mulcher – it is extremely versatile. The machine is capable of working independently and flexibly even on inaccessible sections of track.

Reliability

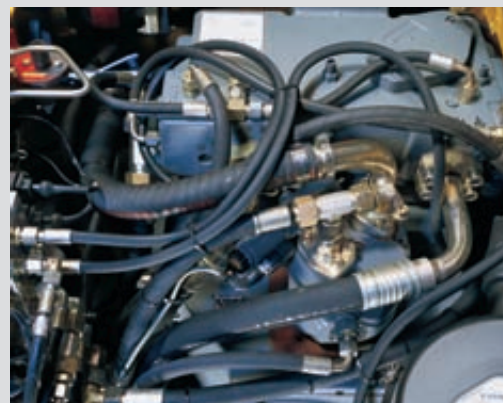
The A 900 C ZW Litronic is highly versatile. Equipped with proven Liebherr components and extensive safety features, it enables the operator to concentrate fully on the work at hand. As a key piece of equipment it is dependable whether on rail, in rough terrain or on the road.





Liebherr diesel engine

- Long life, large capacity of 6,4 l
- Complies with current emissions regulations
- High output of 105 kW at only 1800 rpm
- Specially designed for construction machinery operation



Performance

The new advanced dual-purpose “Railroader” technology has been realised in the A 900 C ZW Litronic to great effect. It is based on the powerful, large displacement Liebherr engine, which drives two independent pumps as standard. This ensures the availability of a high flow rate in all situations.

Innovative concept

No compromise in performance

With its 105 kW (143 HP) Liebherr engine, the A 900 C ZW Litronic offers high performance both on rail and on road. Well engineered components guarantee fast cycle times and a powerful drive.

Flexibility of movement

The innovative LSC hydraulic system was developed especially for railroaders. Maximum power and maximum forces are always available. It is no problem to simultaneously move along the tracks and operate the equipment.

Power and precision

Constant flowrates

The A 900 C ZW Litronic is a base carrier that can be used with a wide range of hydraulic attachments.

Independent rail bogies

A further, independent variable displacement pump is provided for the rail bogies. This guarantees optimal load distribution onto the rails. Signal installations next to the tracks can be safely passed at all times.

Precision

A wide range of tasks – for example levelling the ballast or work on embankments – can be performed perfectly. The Litronic system enables accurate work and precise control of the attachments.

Innovative hydraulics

- 2 Liebherr variable displacement pumps with independent control circuits
- Excellent power and speed
- Independent operation of hydraulic attachments



Litronic

- Increases the excavator's performance
- Reduces fuel consumption
- Reduces service costs and makes operation easier
- Enables high precision and an unlimited number of simultaneous movements



High quality rear space monitoring system

- Two different options are available
- Horizontal angle of camera 115°
- High light sensitivity (0,5 lux)
- Controlled heating of camera against condensation or frost
- IP69: absolute dust-tight, protection against steam cleaner
- automatic brightness control for display
- 7" TFT colour display



Comfort

The well laid out cab provides customised comfort for the driver in every way, while the large windows offer extremely good visibility. This concept is further enhanced by the use of sloping edges and cleverly positioned hoses to guarantee a clear and safe all-round view of the entire site situation.

Innovative concepts

Excellent overview in the operator's cab

The instruments are clearly laid out. The displays are easy to read and provide all necessary information about the excavator's operating condition at a glance.

The limits for lifting height and slewing radius can be adjusted on the display.

Comfort and easy access

Wide steps lead to the spacious, ergonomic operator's cab, which includes climate control as standard. The comfortable Liebherr seat is individually adjustable and dampens vibrations. It is a contributing factor to greater driver consistency and output.

A pleasant environment

Noise emissions inside and outside the cab are reduced thanks to the low engine speed and the sophisticated sound insulation concept. In fact, the noise level is comparable to that of modern diesel cars.

Level control system

A steady ride

The railroader rides evenly on the tracks thanks to the constant automatic level control of the rail bogies.

Novotronic

With Liebherr's Novotronic system, the bearing pressure of the tyres can be adjusted easily via an adjusting screw. This ensures optimal tyre traction at all times.

Test points

- Clearly positioned centralised test points for quick and safe adjustments
- Monitoring and control functions increase the excavator's operational reliability.



Fully-automatic air-conditioning system

- The air-conditioning system, fitted as standard, offers the same comfort as that of a regular car
- Two sensors for precise temperature regulation
- Ventilation flaps are controlled via keys
- Reheat function for quick dehumidifying / defrosting of the windshield



Hydrostatic fan drive

- Accelerated warm-up period
- Constant oil temperature guarantees a consistent oil quality
- Increased lifespan of the drive train components
- Fan uses no more power than necessary, thereby reducing fuel consumption and significantly reducing noise levels



Economy

Economic efficiency is one of key aims of the “Railroader” concept. The A 900 C ZW Litronic is specifically designed this way, perfectly coordinated to the attachments – such as rammer, tamping machine or mulcher – it is extremely versatile. The machine is capable of working independently and flexibly even on inaccessible sections of track.

Economic use around the clock

Engine

The Liebherr engine delivers full power even at low speeds. It is equipped with direct injection, turbocharger and intercooling and has an excellent torque characteristic with high power reserves.

Automatic idling

Fuel consumption and emission levels can be reduced thanks to this selectable feature: when the excavator is not moving or in operation, the engine speed is automatically reduced to idle.

Service orientated

Safe, non-slip steps and ergonomically positioned handles ensure safe access to all maintenance parts. All necessary maintenance work can be carried out quickly and cost-effectively thanks to the clever design.

A safe investment

Customised service

Our proven service is provided in close cooperation with our dealers. All service personnel are trained directly at the factory to guarantee the most economically efficient overall package. Our global spare parts management system can be accessed electronically, ensuring spare parts availability around the clock.

High residual value

With their quality materials and modern technologies, Liebherr excavators are designed for durability. Used Liebherr construction equipment is in high demand ensuring a high residual value.

Quick-change stick

- Equipment is optimised for the excavator and enables the use of a big variety of attachments
- Mechanical quick-hitch for the railroader
- Optimised for work underneath overhead lines



Modular quick-change system made by Liebherr

- Likufix – connects all hydraulically mounted tools without having to leave the operator's cab, maximum productivity due to tool change being performed in a matter of seconds
- The suitable digging tool for every application. Your machine is a multi-functional tool carrier and will pay for itself very quickly indeed.
- Mechanic and hydraulic Liebherr quick-change adapter



Features

- High-tensile steel plates in high-stress areas for the toughest of applications
- Well-thought-out and secure bearings for attachments and cylinders
- Maximum resistance, even when lifting heavy loads



Reliability

The A 900 C ZW Litronic is highly versatile. Equipped with proven Liebherr components and extensive safety features, it enables the operator to concentrate fully on the work at hand. As a key piece of equipment it is dependable whether on rail, in rough terrain or on the road.

Liebherr stands for quality

Liebherr components

The powertrain components – including the engine, swing and travel gearboxes, hydraulic pumps and hydraulic cylinders – are all manufactured in-house and thus perfectly matched. They were developed, tested and produced by Liebherr specifically for construction equipment. As elements of an overall system that is designed to have a long lifecycle, they offer the highest possible reliability.

Innovative road-rail system

Liebherr has over 60 years of experience in the manufacture of hydraulic excavators and over 40 years of experience in the manufacture of railroaders. The expertise gained during those years, together with state-of-the-art production technologies, has been incorporated into the new road-rail design. Therefore, with this machine, Liebherr offers a unique advantage in competency of both design and experience.

Safety included

Attachments

The robust attachments are designed for heavy-duty applications. Structural components are optimised using finite element methods. The hydraulic jacks are located on either side.

Reliability

The electrical and electronic systems are equipped with high-quality components that are produced and tested by Liebherr. This ensures a safe and reliable control of the machine.

Liebherr hydraulic cylinders

- Size adapted to each machine
- High-quality surface coating of the piston rod
- Liebherr cylinders are equipped with a special long-life sealing system
- Working cylinders feature damping at both ends.



Lubrication

- Centralised lubrication system ensures even distribution
- Filling level can be checked at any time through the transparent container
- Quick and simple servicing

Technical Data



Engine

Rating per ISO 9249	105 kW (143 HP) at 1800 RPM
Model	Liebherr D 934 S according to level IIIA/Tier 3
Type	4 cylinder in-line
Bore/Stroke	122/136 mm
Displacement	6,4 l
Engine operation	4-stroke diesel unit pump system turbo-charged and after-cooled reduced emissions
Cooling system	water-cooled and integrated motor oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	290 l
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 135 Ah/12 V
Alternator	three phase current 28 V/80 A
Option	Liebherr particle filter



Hydraulic System

Hydraulic pump	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 189 l/min.
Max. hydr. pressure	350 bar
Hydraulic pump regulation and control	2 circuit Liebherr-Synchron-Comfort-System (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, load sensing and torque controlled swing drive priority
Attachment priority control	priority LSC circuit for attachments max. 189 l/min.
Additional circuit pump	variable displacement pump
Flow	93 l/min.
Hydr. pressure	290 bar
Hydraulic tank capacity	175 l
Hydraulic system capacity	max. 340 l
Filtration	one main return filter with integrated partial micro filtration (5 µm)
Cooling system	compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler, fuel cooler and after-cooler cores and hydrostatically driven fan
Modes	can also be adjusted by the operator to adjust engine and hydraulic performance to match job conditions (Note: All modes provide full max. power)
LIFT	for precise lifting tasks
FINE	for precision work at high speed i.e. grading
ECO	for the most economical and environmentally friendly performance
POWER	for max. output
Super-Finish	additional operator adjustable work speed function for further increased feathering. Applies to all modes and all control functions
RPM adjustment	stepless adjustment of engine output via the RPM
Function menu	ten preadjustable pump flows and pressures for optional attachments



Hydraulic Controls

Power distribution	via control valves with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and equipment
Flow summation	2 x 189 l/min. for all working movements
Control type	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via switch and/or proportional foot pedals



Swing Drive

Drive	Liebherr swashplate motor with torque control and integrated brake valve
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr sealed single race ball bearing swing ring, internal teeth
Swing speed	0 – 9,0 RPM stepless
Swing torque	46 kNm
Holding brake	wet discs (spring applied – pressure released)
Option	pedal controlled positioning brake



Operator's Cab

Cab	two-seater, resiliently mounted, sound insulated, tinted windows, front screen lifts up under roof, door with sliding window
Operator's seat	fully adjustable, shockabsorbing suspension, adjustable to operator's weight and size, 6-way adjustable Liebherr seat, extra seat for second person
Joysticks	integrated into adjustable seat consoles. Application of emergency brake and air horn possible by second person
Monitoring	menu driven query of current operating conditions via the LCD display. Automatic monitoring, display, warning (acoustic and optical) and electronic storage of machine, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Safety kit	safety flags, air horn, warning triangle, warning lights, fire extinguisher, first aid kit and ÖCU-bag
Air conditioning	climate control as standard, combined cooler/heater, dust filter in fresh air and recirculation circuits
Noise emission	
ISO 6396	L_{pA} (inside cab) = 73 dB(A)
2000/14/EC	L_{WA} (surround noise) = 100 dB(A)
Sound level in correspondence with "Blue Angel" guidelines.	



Undercarriage

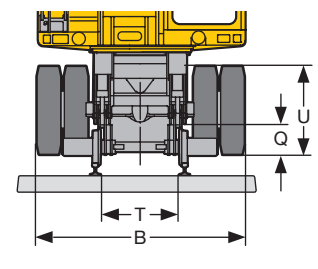
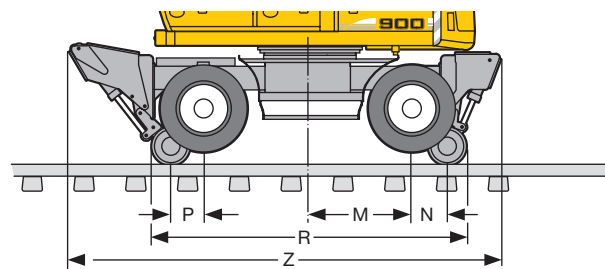
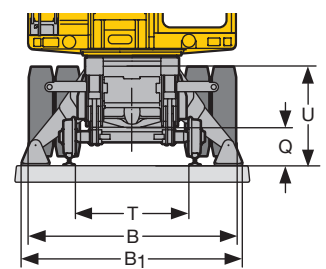
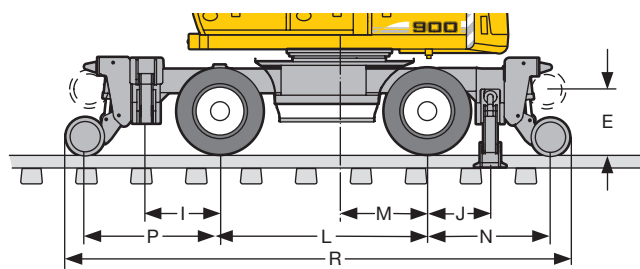
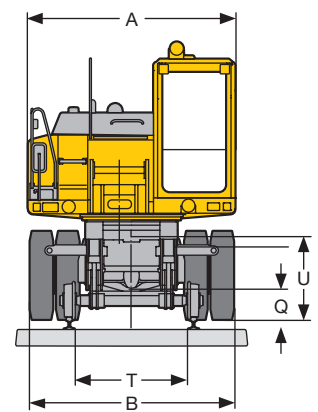
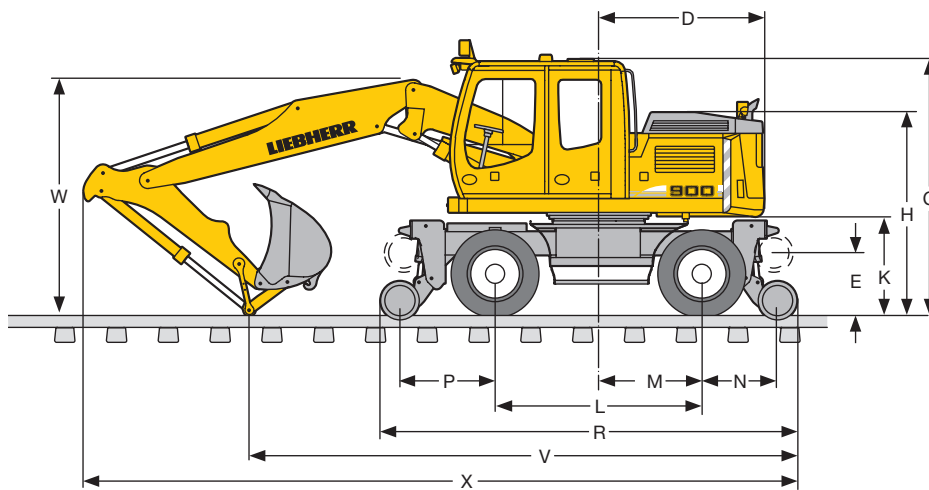
Drive	variable flow swashplate motor with automatic brake valve
Transmission	two speed power shift transmission with additional creeper speed
Travel speed	0 – 2,5 km/h (creeper speed off road) 0 – 5,0 km/h (off road) 0 – 9,0 km/h (creeper speed on road) 0 – 20,0 km/h (road travel)
Axles	40 t excavator axles; automatic or operator controlled front axle oscillation lock
Brakes	wet, maintenance-free multi disc brakes act as travel brakes or digging locks. Spring applied/pressure released parking brake integrated into gearbox
Stabilization	4 point outriggers
Rail bogie system	rail bogies at each end with 400 mm dia wheels, raised and lowered hydraulically, automatically regulated during travel
Grounding cable	rail bogie system
Trailer hitch	"Rockinger" coupling front and rear. Tow bar



Equipment

Hydraulic cylinders	Liebherr cylinders with special seals and guides and end damping.
Bearings	sealed, low maintenance
Lubrication	Liebherr semi-automatic central lubrication system
Sticks	all sticks prepared for quick hitch stick
Option	Liebherr quick hitch

Dimensions



	without outriggers/ Symetric Rail	4 point outriggers	Friction drive Narrow gauge
	mm	mm	mm
A	2500	2500	2500
B	2520	2520	2520
B1	—	2700	—
C	3080	3080	3230
D	2000	2000	2000
E	780	780	—
H	2460	2460	2610
I	—	920	—
J	—	770	—
K	1210	1210	1360
L	2500	2500	2500
M	1050/1250*	1050	1050/1250*
N	900	1490	400
P	1150	1640	400
Q	340	340	500
R	5020	6100	3785
T	1435	1435	1000
U	995	995	1120
Z	—	—	5220

* = Symetric Rail

Tyres 10.00-20

	Stick	Hydr. Adjustable Boom 3,40 m			
		without outriggers	4 point outriggers	Friction drive Narrow gauge	Symetric Rail
	m	mm	mm	mm	mm
V	1,85	6400	7000	6600	6600
	2,25	5700	6850*	6400*	5900
	2,65	6150*	6950*	6200*	5700
W	1,85	3000	3000	3000	3000
	2,25	2950	2950*	2950*	2950
	2,65	3050*	3200*	3050*	3050
X	1,85	8500	9100	8750	8700
	2,25	8400	9550*	9100*	8600
	2,65	9050*	9500*	9100*	8600

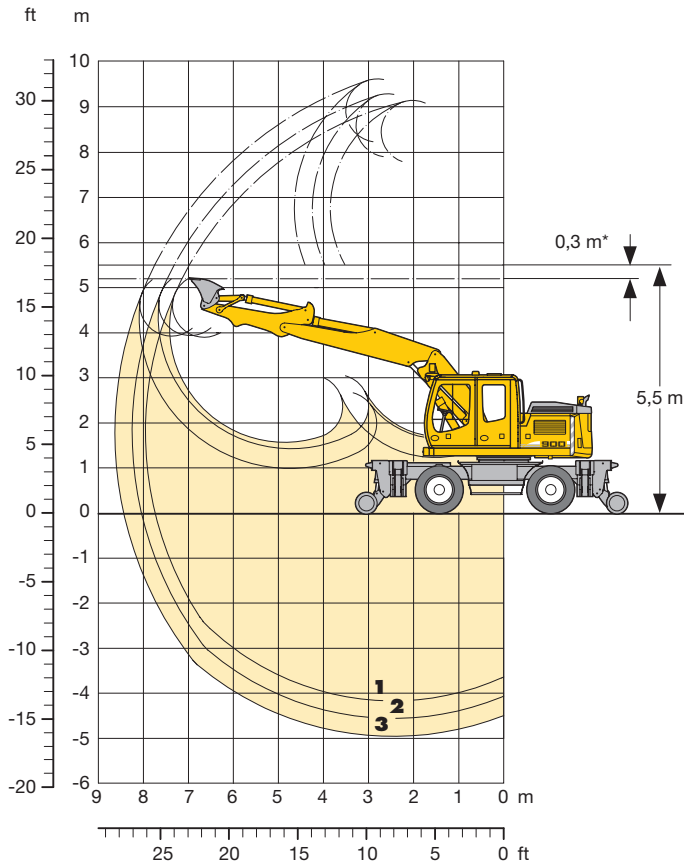
	Stick	Adjustable Up/Down plus Offset Boom 3,60 m			
		without outriggers	4 point outriggers	Friction drive Narrow gauge	Symetric Rail
	m	mm	mm	mm	mm
V	1,85	6650	7250	6850	6850
	2,25	5950	7100*	6200	6150
	2,65	5750	6900*	6450*	5950
W	1,85	3050	3050	3050	3050
	2,25	3000	3000*	3000	3000
	2,65	3150	3150*	3150*	3150
X	1,85	8700	9300	8950	8900
	2,25	8550	9700*	8800	8750
	2,65	8550	9700*	9250*	8750

Dimensions are with attachment over steering axle

* Attachment over digging axle for shorter transport dimensions

Ditchcleaning Attachment

with Hydr. Adjustable Boom 3,40 m



* Safety distance to overhead wires

Digging Envelope

		1	2	3
Stick length	m	1,85	2,25	2,65
Max. digging depth	m	4,20	4,60	5,00
Max. reach at ground level	m	7,75	8,05	8,45
Max. dumping height	m	7,80	7,90	8,25
Max. dumping height under overhead wires	m	3,90	3,90	3,90
Max. teeth height	m	9,15	9,30	9,60
Max. digging force	kN	89,5	78,4	69,7
	t	9,1	8,0	7,1
Max. breakout force	kN	98,3	98,3	98,3
	t	10,0	10,0	10,0

Max. breakout force with ripper bucket 114,0 kN (11,6 t)

Operating Weight

The operating weight includes the basic machine with 8 tyres plus spacer rings, hydr. adjustable boom 3,40 m, stick 2,25 m and ditchcleaning bucket 2000 mm/0,65 m³.

Undercarriage versions	Weight
A 900 C ZW Litronic [®] Symetric Rail	19600 kg
A 900 C ZW Litronic [®] without outriggers	19600 kg
A 900 C ZW Litronic [®] with 4 point outriggers	21400 kg

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m³	Weight kg	without outriggers						4 pt. outriggers						Symetric Rail					
			on rail			on tyres			on rail			on tyres			on rail			on tyres		
			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)			Stick length (m)		
			1,85	2,25	2,65	1,85	2,25	2,65	1,85	2,25	2,65	1,85	2,25	2,65	1,85	2,25	2,65	1,85	2,25	2,65
1600	0,80	445	■	■	▲	□	□	△	△	■	■	□	□	□	□	□	□	■	■	▲
2000	0,65	388	△	△	■	□	□	□	□	□	△	□	□	□	□	□	□	△	△	■
1600 ²⁾	0,80	766	▲	▲	▲	□	△	■	■	▲	▲	□	□	□	□	□	□	▲	▲	▲
2000 ²⁾	0,70	811	■	▲	▲	□	□	△	■	■	▲	□	□	□	□	□	□	■	▲	▲

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

¹⁾ comparable with SAE (heaped)








²⁾ with 2 x 50° rotator

□	= ≤ 1,8 t/m³ max. material weight
△	= ≤ 1,5 t/m³ max. material weight
■	= ≤ 1,2 t/m³ max. material weight
▲	= -








Lift Capacities

with Hydr. Adjustable Boom 3,40 m

without Outriggers Stick 1,85 m

 m	Undercarriage	 3,0 m	 4,5 m	 6,0 m	 7,5 m	 7,5 m	 m
7,5	on rail on tyres	6,6 7,4*	7,4* 7,4*				3,8 4,8*
6,0	on rail on tyres	6,0* 6,0*	6,0* 6,0*	3,6 4,8	6,5* 6,5*		2,2 3,1
4,5	on rail on tyres	6,2 8,6	9,5* 9,5*	3,6 4,8	7,1* 7,1*	2,2 3,0	5,8* 4,6
3,0	on rail on tyres	6,0 8,3	9,4* 9,4*	3,5 4,7	8,2* 7,0	2,2 3,0	6,1* 4,6
1,5	on rail on tyres	6,0 8,2	11,7* 11,7*	3,4 4,6	8,7* 7,0	2,1 2,9	6,3* 4,5
0	on rail on tyres	5,5 7,8	13,7* 13,5	3,2 4,4	8,7* 7,0	2,0 2,7	6,4* 4,3
-1,5	on rail on tyres	5,3 7,6	14,3* 13,8	3,0 4,1	9,0* 6,7	1,9 2,6	5,3* 4,2
-3,0	on rail on tyres	5,1 7,4	11,8* 11,8*	2,8 4,0	5,8* 5,8*		

4 Point Outriggers Stick 1,85 m

 m	Undercarriage	 3,0 m	 4,5 m	 6,0 m	 7,5 m	 7,5 m	 m
7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	7,0 7,4* 7,4*	7,4* 7,4* 7,4*				4,1 4,8* 4,8*
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,0* 6,0* 6,0*	6,0* 6,0* 6,5	3,9 5,2	6,5* 6,5*		2,4 3,3 3,7*
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,7 9,1* 9,5*	9,5* 9,5* 6,3	3,9 5,1	7,1* 3,2	2,4 5,0	1,9 2,6 3,3*
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,4 8,8 9,4*	9,4* 9,4* 6,2	3,8 5,1	8,2* 7,4	2,4 3,2	1,7 2,3 3,0
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,4 8,8 11,3	11,7* 11,7* 6,2	3,7 5,0	8,7* 7,4*	2,3 3,1	1,6 2,3 2,9
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,9 8,4 11,3	13,7* 13,7* 6,1	3,5 4,8	8,7* 7,6	2,2 3,0	1,6 2,3 3,0
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,7 8,2 11,1	14,3* 14,3* 5,8	3,2 4,5	9,0* 7,3	2,1 2,9	1,9 2,6 3,4
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,6 8,1 10,9	11,8* 11,8* 5,7	3,1 4,4	5,8* 5,8*		3,0 4,2 5,2*

Stick 2,25 m

7,5	on rail on tyres			3,5 4,1*	4,1* 4,1*				3,2* 3,2*	3,2* 3,2*	4,69
6,0	on rail on tyres			3,7 4,9*	5,6* 5,6*	2,2 3,0	3,7* 3,7*		2,1 2,7*	2,7* 3,7*	6,17
4,5	on rail on tyres	6,3 8,0*	8,0* 8,0*	3,6 4,8	6,7* 6,7*	2,3 3,0	5,6* 4,6		1,6 2,2	2,5* 2,5*	7,01
3,0	on rail on tyres	6,0 8,3	11,0* 11,0*	3,5 4,7	7,8* 7,0	2,2 3,0	5,9* 4,6		1,4 2,0	2,5* 2,5*	7,44
1,5	on rail on tyres	5,9 8,2	11,8* 11,8*	3,5 4,7	8,6* 6,9	2,1 2,9	6,2* 4,5	1,4 1,9	3,1* 3,1	1,3 1,9	7,54
0	on rail on tyres	5,5 7,9	13,4* 13,4*	3,2 4,4	8,7* 7,0	2,0 2,8	6,3* 4,4		1,4 2,0	2,9* 2,9*	7,33
-1,5	on rail on tyres	5,3 7,6	14,1* 13,8	3,0 4,2	8,9* 6,8	1,9 2,6	5,9* 4,2		1,5 2,2	3,5* 3,5	6,76
-3,0	on rail on tyres	5,1 7,4	13,4* 13,4*	2,8 4,0	7,3* 6,5				2,1 3,0	4,2* 4,2*	5,48

Stick 2,25 m

7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,8 4,1*	4,1* 4,1*				3,2* 3,2*	3,2* 3,2*	4,69
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 5,2	5,6* 5,6*	2,4 3,2	3,7* 3,7*		2,2 2,7*	2,7* 3,7*	6,17
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,7 8,0*	8,0* 8,0*	3,8 5,1	6,7* 6,7*	2,4 3,3	5,6* 5,0		1,8 2,5	2,5* 2,5*	7,01
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,4 8,8*	11,0* 11,0*	3,8 5,0	7,8* 7,4	2,4 3,3	5,9* 5,0		1,6 2,2	2,5* 2,5*	7,44
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,3 8,7	11,8* 11,8*	3,7 5,0	8,6* 7,4	2,3 3,2	6,2* 4,9	1,5 2,7	3,1* 3,1*	1,5 2,6*	7,54
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,0 8,5	13,4* 13,4*	3,5 4,8	8,7* 7,5	2,2 3,0	6,3* 4,7		1,5 2,2	2,9* 2,9*	7,33
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,7 8,2	14,1* 14,1*	3,3 4,5	8,9* 7,3	2,1 2,9	5,9* 4,6*		1,7 2,4	3,5* 3,5*	6,76
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,6 8,1	13,4* 13,4*	3,1 4,3	7,3* 7,1	2,0 2,8	6,3* 4,2*		2,3 3,3	4,2* 4,2*	5,48

Stick 2,65 m

9,0	on rail on tyres										
7,5	on rail on tyres			3,6 4,3*	4,3* 4,3*				2,5* 2,5*	2,5* 2,5*	5,30
6,0	on rail on tyres			3,7 4,7*	4,7* 4,7*	2,3 3,0	4,0* 4,0*		1,8 2,2*	2,2* 2,2*	6,64
4,5	on rail on tyres	5,2* 5,2*	5,2* 5,2*	3,6 4,8	5,6* 5,6*	2,3 3,1	5,1* 4,6		1,4 2,0	2,0* 2,0*	7,42
3,0	on rail on tyres	6,0 8,3	10,9* 10,9*	3,4 4,7	7,5* 7,0*	2,3 3,1	5,7* 4,6	1,4 2,0	3,8* 3,1	1,3 1,8	7,83
1,5	on rail on tyres	5,8 8,1	11,6* 11,6*	3,4 4,6	8,4* 6,9	2,2 3,0	6,1* 4,5	1,4 1,9	4,6 3,1	1,2 1,7	7,93
0	on rail on tyres	5,6 7,9	13,0* 13,0*	3,2 4,4	8,6* 7,0	2,0 2,8	6,2* 4,4	1,3 1,9	4,2* 3,0	1,2 1,8	7,72
-1,5	on rail on tyres	5,2 7,5	13,9* 13,5	3,0 4,2	8,7* 6,8	1,9 2,6	6,2* 4,2		1,3 2,0	2,8* 2,8*	7,19
-3,0	on rail on tyres	5,2 7,5	14,2* 13,6	2,8 4,0	8,2* 6,5	1,8 2,6	4,1* 4,1*		1,7 2,5	3,6* 3,6*	6,17

Stick 2,65 m

9,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down										
7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 4,3*	4,3* 4,3*				2,5* 2,5*	2,5* 2,5*	5,30
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 4,7*	4,7* 4,7*	2,4 3,0	4,0* 4,0*		2,0 2,2*	2,2* 2,2*	6,64
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,2* 5,2*	5,2* 5,2*	3,8 5,1	5,6* 5,6*	2,5 3,1	5,1* 4,6		1,6 2,0	2,0* 2,0*	7,42
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,5 8,8	10,9* 10,9*	3,7 5,0	7,5* 7,4	2,5 3,3	5,7* 4,9	1,6 2,2	3,8* 3,4	1,4 2,0	7,83
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,3 8,6	11,6* 11,6*	3,7 4,9	8,4* 7,3	2,4 3,2	6,1* 4,9	1,5 2,1	4,6* 3,3	1,3 1,9	7,93
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,0 8,6	13,0* 13,0*	3,5 4,8	8,6* 7,4	2,2 3,1	6,2* 4,7	1,4 2,1	4,2* 3,3	1,4 2,0	7,72
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,7 8,2	13,9* 13,9*	3,3 4,6	8,7* 7,3	2,1 2,9	6,2* 4,6*		1,5 2,2	2,8* 2,8*	7,19
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,6 8,1	14,2* 14,2*	3,1 4,3	8,2* 7,1	2,0 2,8	4,1* 4,1*		1,9 2,7	3,6* 3,6*	6,17

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

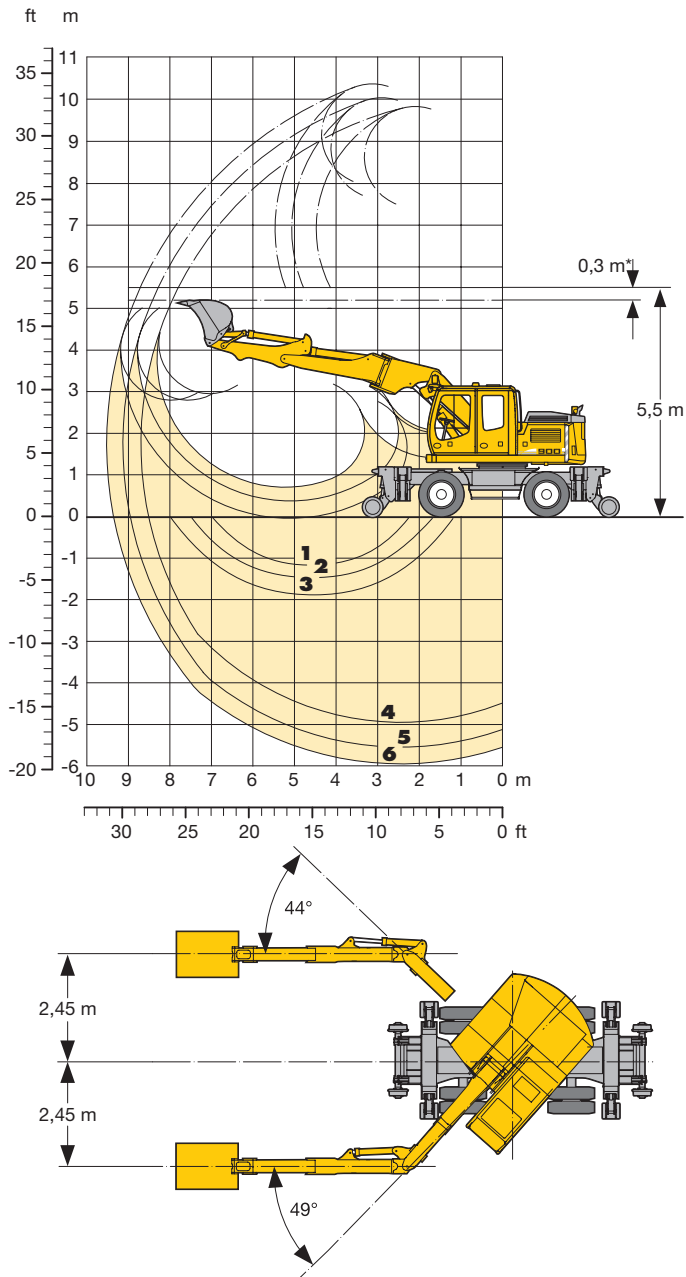
The lift capacities are stated in metric tonnes (t) at the stick end and can be lifted 360° on firm, level supporting surface with locked steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the steering axle with the stabilisers raised and over the rigid axle with the stabilisers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads comply with 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 hook.

In accordance with the harmonised EU Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe rupture protection devices on the hoist cylinders and an overload warning device.

Please note that the stability will be reduced by approx. 20 % in case of a 100 mm cant and 40 % in case of a 180 mm cant.

Backhoe Attachment

with Adjustable Up/Down plus Offset Boom 3,60 m



Digging Envelope

		4	5	6
Stick length	m	1,85	2,25	2,65
Max. digging depth	m	4,85	5,45	5,85
Max. reach at ground level	m	8,45	8,90	9,30
Max. dumping height	m	7,50	7,70	8,05
Max. dumping height under overhead wires	m	2,80	2,80	2,80
Max. teeth height	m	9,85	10,05	10,35
Max. digging force	kN	89,5	78,4	69,7
	t	9,1	8,0	7,1
Max. breakout force	kN	98,3	98,3	98,3
	t	10,0	10,0	10,0

Max. breakout force with ripper bucket 114,0 kN (11,6 t)

- 1 stick 1,85 m
- 2 stick 2,25 m
- 3 stick 2,65 m
- at max. attachment offset with vertical ditch walls
- 4 stick 1,85 m
- 5 stick 2,25 m
- 6 stick 2,65 m
- with set straight boom

Operating Weight

The operating weight includes the basic machine with 8 tyres plus spacer rings, hydr. adjustable offset boom 3,60 m, stick 2,25 m and bucket 850 mm/0,60 m³.

Undercarriage versions	Weight
A 900 C ZW Litronic [®] Symetric Rail	20200 kg
A 900 C ZW Litronic [®] without outriggers	20200 kg
A 900 C ZW Litronic [®] with 4 point outriggers	22000 kg

* Safety distance to overhead wires

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	without outriggers									4 pt. outriggers									Symetric Rail								
			on rail			on tyres						on rail			on tyres						on rail			on tyres					
			Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65				Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65				Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65			
400	0,24	310	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
650	0,45	348	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
850	0,60	401	△	■	▲	□	□	□	△	△	■	□	□	□	□	□	□	□	□	△	■	▲	□	□	□	□	□	□	□
1050	0,80	480	▲	▲	▲	△	△	■	■	▲	▲	□	□	□	□	□	□	□	□	▲	▲	▲	□	□	□	□	□	□	□
1250	0,95	525	▲	▲	▲	■	■	▲	▲	▲	▲	△	△	■	□	□	□	□	□	▲	▲	▲	■	■	■	■	■	■	■

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



¹⁾ comparable with SAE (heaped)

max. material weight □ = ≤ 1,8 t/m³, △ = ≤ 1,5 t/m³, ■ = ≤ 1,2 t/m³, ▲ = -


















Lift Capacities

with Adjustable Up/Down plus Offset Boom 3,60 m

without Outriggers Stick 1,85 m

 m	Undercarriage	3,0 m		4,5 m		6,0 m		7,5 m				m
7,5	on rail on tyres			3,3 4,5	4,8* 4,8*					3,3 4,5	4,5* 4,5*	4,52
6,0	on rail on tyres			3,6 4,8	6,3* 6,3*	2,0 2,8	4,3* 4,3*			2,0 2,7	3,5* 3,5*	6,04
4,5	on rail on tyres	6,2 8,4	8,5* 8,5*	3,5 4,7	6,9* 6,9*	2,1 2,9	5,6* 4,6			1,5 2,1	3,2* 3,2*	6,90
3,0	on rail on tyres	5,8 8,1	8,2* 8,2*	3,4 4,7	7,9* 6,9	2,1 2,9	5,9* 4,5			1,3 1,9	3,0* 3,0*	7,34
1,5	on rail on tyres	5,8 8,1	10,8* 10,8*	3,4 4,6	8,3* 6,8	2,0 2,8	6,0* 4,4			1,2 1,8	3,1* 3,0	7,44
0	on rail on tyres	5,2 7,6	13,1* 13,1*	3,1 4,3	8,4* 7,0	1,8 2,6	6,2* 4,2			1,2 1,9	3,3* 3,1	7,22
-1,5	on rail on tyres	5,0 7,3	13,9* 13,6	2,8 4,0	8,7* 6,6	1,7 2,5	5,5* 4,1			1,4 2,1	3,7* 3,5	6,64
-3,0	on rail on tyres	4,8 7,1	12,3* 12,3*	2,6 3,8	6,3* 6,3*					2,2 3,1	4,4* 4,4*	5,09

4 Point Outriggers Stick 1,85 m

											
m	Undercarriage									m	
7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down				3,6 4,8* 4,8*	4,8* 4,8* 4,8*				3,5 4,5* 4,5*	4,52
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down				3,9 5,2 6,3*	6,3* 6,3* 6,3*	2,2 3,1 3,9	4,3* 4,3* 4,3*		2,2 3,0 3,5*	6,04
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		6,6 8,5* 8,5*	8,5* 8,5* 8,5*	3,8 5,1 6,2	6,9* 6,9* 6,9*	2,3 3,2 4,1	5,6* 4,9 5,6*		1,7 2,4 3,1	6,90
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		6,3 8,2* 8,2*	8,2* 8,2* 8,2*	3,7 5,0 6,1	7,9* 7,3 7,9*	2,3 3,2 4,0	5,9* 4,9 5,9*		1,4 2,1 2,7	7,34
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		6,2 8,6 10,8*	10,8* 10,8* 10,8*	3,6 5,0 6,1	8,3* 7,3 8,3*	2,2 3,0 3,9	6,0* 4,8 6,0*		1,4 2,0 2,6	7,44
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		5,7 8,2 11,2	13,1* 13,1* 13,1*	3,3 4,7 6,0	8,4* 7,4 8,4*	2,0 2,9 3,7	6,2* 4,6 6,2*		1,4 2,1 2,7	7,22
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		5,4 8,0 10,9	13,9* 13,9* 13,9*	3,1 4,4 5,7	8,7* 7,2 8,7*	1,9 2,7 3,6	5,5* 4,4 5,5*		1,6 2,3 3,1	6,64
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down		5,3 7,8 10,6	12,3* 12,3* 12,3*	2,9 4,1 5,5	6,3* 6,3* 6,3*				2,4 3,4 4,4*	5,09

Stick 2,25 m

7,5	on rail on tyres			3,5 3,9*	4,8* 3,9*				2,8 2,0*	3,0* 2,0*	5,02	
6,0	on rail on tyres			3,6 4,5*	5,7* 4,5*	2,1 2,8	4,5* 3,8*		1,8 1,8*	2,6* 1,8*	6,42	
4,5	on rail on tyres	6,2 6,1*	9,3* 6,1*	3,5 4,6	6,6* 5,8*	2,2 2,9	5,3* 4,4	1,7 2,1*	1,4 1,7	2,4* 1,7*	7,23	
3,0	on rail on tyres	5,9 7,9	10,0* 10,9*	3,4 4,4	7,6* 6,6	2,2 2,9	5,7* 4,3*	1,3 1,7	3,7* 2,8	1,2 1,4	2,4* 1,8*	7,65
1,5	on rail on tyres	5,8 7,7*	11,0* 10,7*	3,4 4,3	8,2* 6,5	2,1 2,7	6,0* 4,3	1,2 1,6	4,5 2,8	1,1 1,3	2,5* 1,9*	7,75
0	on rail on tyres	5,3 7,5	12,8* 12,2*	3,1 4,1	8,3* 6,5*	1,9 2,5	6,0* 4,1	1,1 1,5	3,2* 2,7	1,1 1,4	2,8* 2,2*	7,53
-1,5	on rail on tyres	5,0 7,1	13,7* 12,8	2,9 3,9	8,5* 6,6	1,7 2,3	5,9* 3,9		1,3 1,5	3,3* 2,7*	6,98	
-3,0	on rail on tyres	4,9 7,0	13,6* 13,2	2,6 3,5	7,6* 6,1	2,1 3,7			1,7 1,9	3,6* 3,2*	5,84	

Stick 2,25 m

7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,8 4,8* 4,8*	4,8* 4,8* 4,8*				3,0* 3,0* 3,0*	3,0* 3,0* 3,0*	5,02
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 5,2 5,7*	5,7* 5,7* 5,7*	2,3 3,2 4,0	4,5* 4,5* 4,5*		2,0 2,6* 2,6*	2,6* 2,6* 2,6*	6,42
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,7 9,1 9,3*	9,3* 9,3* 9,3*	3,8 5,1 6,3	6,6* 6,6* 6,6*	2,4 3,3 4,1	5,3* 4,9* 5,3*		1,5 2,2 2,4*	2,4* 2,4* 2,4*	7,23
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,3 8,6 10,0*	10,0* 10,0* 10,0*	3,6 4,9 6,1	7,6* 7,3 7,6*	2,4 3,2 4,1	5,7* 4,9 5,7*	1,4 2,0 2,7	3,7* 3,3 3,7*	1,3 2,0 2,4*	7,65
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,2 8,5* 10,9	11,0* 11,0* 11,0*	3,7 4,9* 6,0	8,2* 7,2* 8,2*	2,3 3,1 4,0	6,0* 4,8 6,0*	1,4 2,0 2,6	4,6* 3,2 4,6*	1,3 1,9 2,5	7,75
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,8 8,3 11,1	12,8* 12,8* 12,8*	3,4 4,7 6,1	8,3* 7,3 8,3*	2,1 2,9 3,8	6,0* 4,6 6,0*	1,3 1,9 2,5	3,2* 3,1 3,2*	1,3 1,9 2,5	7,53
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,4 8,0 10,9	13,7* 13,7* 13,7*	3,2 4,5 5,8	8,5* 7,2 8,5*	1,9 2,7 3,6	5,9* 4,4 5,9*		1,4 2,1 2,8	3,3* 3,3* 3,3*	6,98
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,3 7,8 10,7	13,6* 13,6* 13,6*	2,9 4,1 5,5	7,6* 6,9 7,6*				1,9 2,8 3,6*	3,6* 3,6* 3,6*	5,84

Stick 2,65 m

9,0	on rail on tyres									3,6* 3,6*	3,6* 3,6*	3,19
7,5	on rail on tyres			3,6 4,5*	4,5* 4,5*					2,3 2,4*	2,4* 2,4*	5,61
6,0	on rail on tyres			3,7 4,7*	4,7* 4,7*	2,2 3,0	4,3* 4,3*			1,6 2,1*	2,1* 2,1*	6,88
4,5	on rail on tyres	5,7* 5,7*	5,7* 5,7*	3,5 4,7	5,8* 5,8*	2,3 3,1	5,1* 4,6	1,3 1,9	2,8* 2,8*	1,2 1,8	2,0* 2,0*	7,64
3,0	on rail on tyres	5,8 8,1	9,9* 9,9*	3,4 4,6	7,2* 6,8	2,3 3,1	5,5* 4,5	1,3 1,9	4,4* 3,0	1,1 1,6	2,0* 2,0*	8,04
1,5	on rail on tyres	5,7 7,9	10,8* 10,8*	3,3 4,5	8,1* 6,7*	2,2 3,0	5,8* 4,5	1,2 1,8	4,5 3,0	1,0 1,5	2,1* 2,1*	8,13
0	on rail on tyres	5,4 7,8	12,2* 12,2*	3,1 4,3	8,2* 6,8	2,0 2,8	5,9* 4,3	1,2 1,7	4,4 2,9	1,0 1,5	2,2* 2,2*	7,93
-1,5	on rail on tyres	5,0 7,3	13,4* 13,2*	2,9 4,1	8,3* 6,8	1,7 2,5	6,0* 4,1			1,1 1,7	2,6* 2,6*	7,41
-3,0	on rail on tyres	4,9 7,2	14,0* 13,5	2,6 3,8	8,3* 6,4	1,6 2,4	4,5* 4,0			1,4 2,1	3,1* 3,1*	6,49

Stick 2,65 m

9,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down								3,6* 3,6* 3,6*	3,6* 3,6* 3,6*	3,19
7,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 4,5* 4,5*	4,5* 4,5* 4,5*				2,4* 2,4* 2,4*	2,4* 2,4* 2,4*	5,61
6,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down			3,9 4,7* 4,7*	4,7* 4,7* 4,7*	2,4 3,3 4,1	4,3* 4,3* 4,3*		1,7 2,1* 2,1*	2,1* 2,1* 2,1*	6,88
4,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,7* 5,7* 5,7*	5,7* 5,7* 5,7*	3,8 5,1 5,8*	5,8* 5,8* 5,8*	2,5 3,3 4,1	5,1* 4,9 5,1*	1,5 2,1 2,7	2,8* 2,8* 2,8*	1,4 2,0* 2,0*	7,64
3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,3 8,6 9,9*	9,9* 9,9* 9,9*	3,6 4,9 6,1	7,2* 7,2* 7,2*	2,5 3,3 4,1	5,5* 4,8* 5,5*	1,5 2,1 2,7	4,4* 3,8 4,4*	1,2 1,8 2,0*	8,04
1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	6,1 8,4* 10,8*	10,8* 10,8* 10,8*	3,6 4,8 6,0*	8,1* 7,1* 8,1*	2,4 3,2 4,1	5,8* 4,8 5,8*	1,4 2,0 2,7	4,6* 3,2 4,6*	1,1 1,7 2,1*	8,13
0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,8 8,4 10,8	12,2* 12,2* 12,2*	3,4 4,7 6,1	8,2* 7,2* 8,2*	2,1 3,0 3,8	5,9* 4,7 5,9*	1,3 1,9 2,6	4,5* 3,1 4,5*	1,1 1,7 2,2*	7,93
-1,5	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,4 7,9 10,8	13,4* 13,4* 13,4*	3,2 4,5 5,8	8,3* 7,3 8,3*	1,9 2,8 3,6	6,0* 4,5 6,0*		1,3 2,5 2,5	2,6* 2,6* 2,6*	7,41
-3,0	outriggers raised, on rail outriggers raised, on tyres 4 point outriggers down	5,3 7,9 10,8	14,0* 14,0* 14,0*	2,9 4,2 5,5	8,3* 6,9 8,3*	1,8 2,6 3,5	4,5* 4,3 4,5*		1,6 2,3 3,1	3,1* 3,1* 3,1*	6,49

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

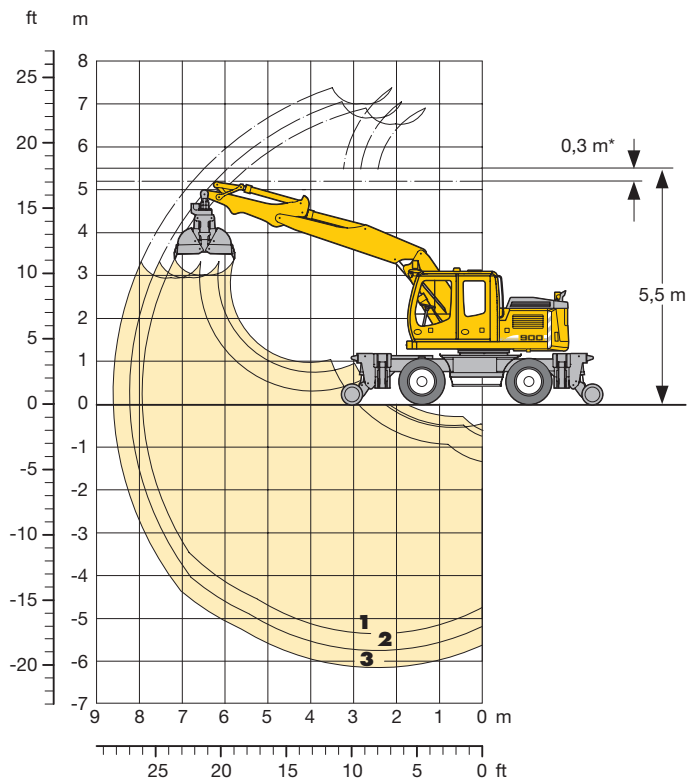
The lift capacities are stated in metric tonnes (t) at the stick end and can be lifted 360° on firm, level supporting surface with locked steering axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (+/- 15°) are specified over the steering axle with the stabilisers raised and over the rigid axle with the stabilisers down. The values apply when the adjusting cylinder is in the optimal position. Indicated loads comply with 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 hook.

In accordance with the harmonised EU Standard EN 474-5, hydraulic excavators used for lifting operations must be equipped with pipe rupture protection devices on the hoist cylinders and an overload warning device.

Please note that the stability will be reduced by approx. 20 % in case of a 100 mm cant and 50 % in case of a 180 mm cant.

Clamshell Attachment

with Hydr. Adjustable Boom 3,40 m



* Safety distance to overhead wires

Digging Envelope

		1	2	3
Stick length	m	1,85	2,25	2,65
Max. digging depth	m	5,35	5,70	6,15
Max. reach at ground level	m	7,95	8,25	8,60
Max. dumping height	m	6,50	6,70	7,00
Max. dumping height under overhead wires	m	3,00	2,95	2,95

Operating Weight

The operating weight includes the basic machine with 8 tyres plus spacer rings, hydr. adjustable boom 3,40 m, stick 2,25 m and clamshell model 7 C/0,35 m³.

Undercarriage versions	Weight
A 900 C ZW Litronic [®] Symetric Rail	20200 kg
A 900 C ZW Litronic [®] without outriggers	20200 kg
A 900 C ZW Litronic [®] with 4 point outriggers	22000 kg

Clamshell Model 7 C Machine stability per ISO 10567* (75 % of tipping capacity)

Cutting width mm	Capacity ISO 7451 ¹⁾ m³	Weight kg	without outriggers						4 pt. outriggers						Symetric Rail					
			on rail			on tyres			on rail			on tyres			on rail			on tyres		
			Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65	Stick length (m) 1,85	2,25	2,65
300 ¹⁾	0,10	690	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
600 ²⁾	0,25	830	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
700 ²⁾	0,30	885	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
600 ³⁾	0,35	900	□	□	△	□	□	□	□	□	□	□	□	□	□	□	△	□	□	□
800 ³⁾	0,48	965	△	■	▲	□	□	□	□	△	■	□	□	□	□	□	△	■	▲	□

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

¹⁾ Special RR shells

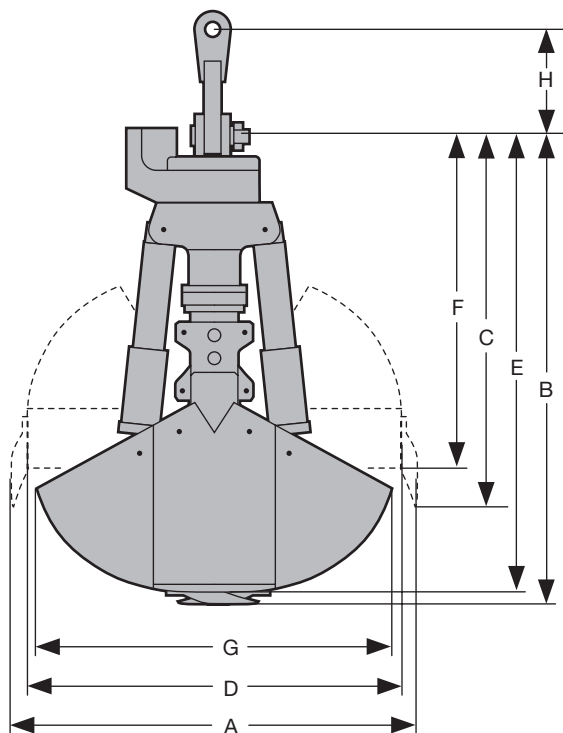
²⁾ Comb. shells

³⁾ Digging shells

□	= ≤ 1,8 t/m³ max. material weight
△	= ≤ 1,5 t/m³ max. material weight
■	= ≤ 1,2 t/m³ max. material weight
▲	= -

Clamshell Grab Model 7 C/7 C-HD

for A 900 C ZW Litronic®



For a complete grab you need

	H mm	Weight kg
Suspension suitable for quick change stick and standard pins		
Swing angle 45°	265	85
Swing angle 90°	370	90
for quick change adapter 33	645	165
Clam mechanism and shell carrier – upper part		
GM 7 C		285
GM 7 C-HD		310
Shells with shell carrier – lower part		see below
Max. shell closing force		see below
Swivel drive torque		1,76 kNm

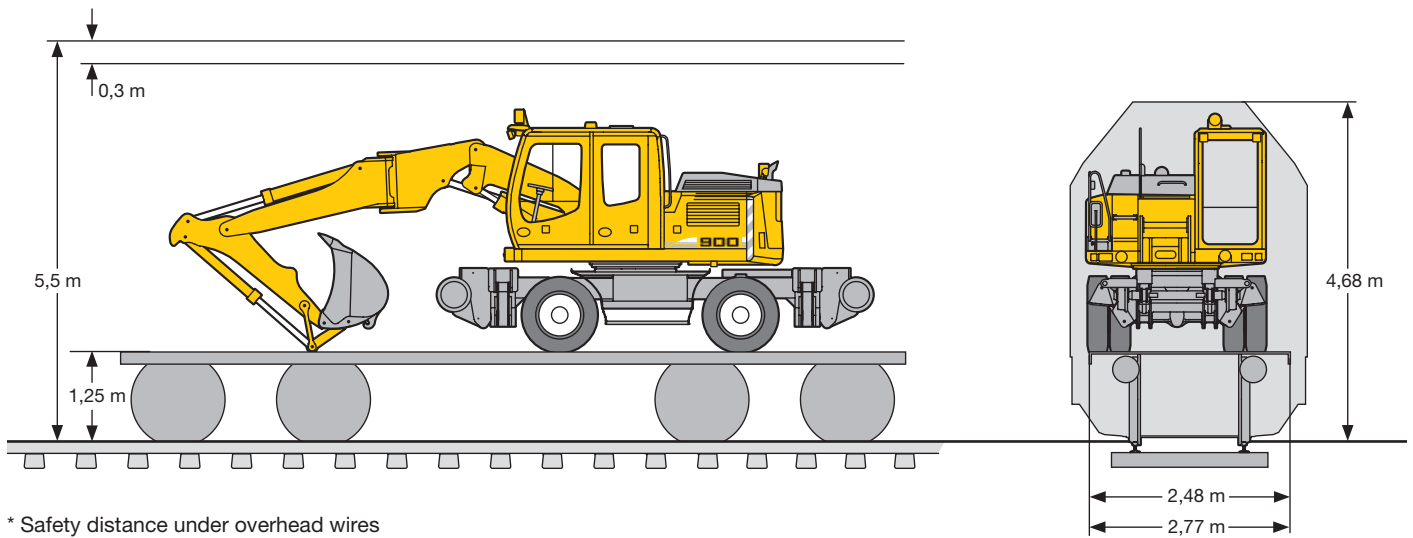
Optional

	Weight kg
Ejectors (set of two) for shell width 300 mm	45
for shell width 600 mm	75

Shells	Special Track Shells					
		HD	Comb. Shells HD		Digging Shells HD	
Width of shells	mm	300	600	700	600	800
Capacity ISO 7451*	m³	0,10	0,25	0,30	0,35	0,48
Type of teeth		HD teeth	HD teeth	HD teeth	HD teeth	HD teeth
Number of teeth		3	5	7	5	7
Max. material weight	t/m³	1,8	1,8	1,8	1,8	1,8
Max. shell closing force GM 7 C	kN (t)	42 (4,3)	37 (3,8)	37 (3,8)	30 (3,1)	30 (3,1)
Max. shell closing force GM 7 C-HD	kN (t)	70 (7,1)	61 (6,2)	61 (6,2)	50 (5,1)	50 (5,1)
Weight shells + lower part	kg	290	430	485	500	565
Dimensions with teeth						
A Opening length	mm	1308	1404	1404	1689	1689
B Overall height closed	mm	1545	1595	1595	1735	1735
C Overall height open	mm	1276	1258	1258	1273	1273
Dimensions without teeth						
D Opening length	mm	1197	1295	1295	1580	1580
E Overall height closed	mm	1490	1539	1539	1671	1671
F Overall height open	mm	1139	1140	1140	1142	1142
G Length of shells closed	mm	1144	1187	1187	1438	1438

* comparable with SAE (heaped)

Dimensions for Transport Choice of Bogie Systems



Choice A

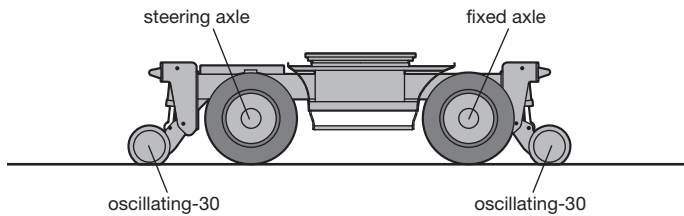
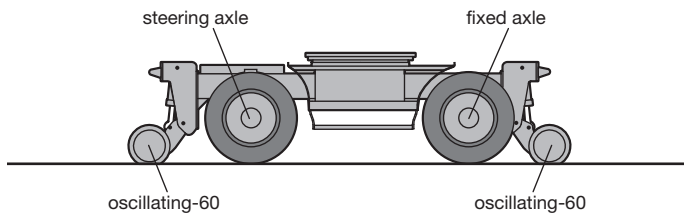
steering axle end oscillating-60
rigid axle end oscillating-60

Area of application
for undulating track

Choice B

steering axle end oscillating-30
rigid axle end oscillating-30

Area of application
for heavy loads



Equipment



Undercarriage

	s	o
Two circuit travel brake with accumulator	•	
Creeper speed electrically switchable from cab	•	
New tyres	•	
Service free parking brake	•	
"Rockinger" couplings front and rear and tow bar	•	
Auto check valves directly on each stabilizer cylinder	•	
Rail guide system (front with oscillating-60, rear with oscillating-30 and grounding cable)	•	
Proportional power steering with mechanical back up	•	
Lashing eyes for transport	•	
Two lockable storage boxes	•	
Two-speed power shift transmission	•	
Paintwork to German RR (DB)		x
Clam travel bracket	•	
Independent outrigger control	•	
Tire filling hose on wagon braking system	•	
Choice of tyres	•	
Rail bogie system: front and rear with oscillating-60 axles	•	
Rail bogie system: front and rear with oscillating-30 axles	•	
Narrow axles	•	
Narrow gauge 1000 mm	•	
Special gauge	•	
Push rod	•	
Customized colors (without DB authorization)	•	
Wagon braking system	•	



Uppercarriage

	s	o
Lighting per German RR (D.B.)-regulation	•	
Maintenance-free swing lock brake	•	
Handrails, Non slip surfaces	•	
Maintenance-free swing lock brake	•	
Maintenance-free HD-batteries	•	
Engine hood with gas struts	•	
Sound insulation	•	
Pin lock upper/lower	•	
Extended tool kit	•	
Electric refuelling pump		•
Paintwork to German RR (DB)		x
Pedal controlled positioning swing brake	•	
Rear view camera	•	
Adjustable swing limiter		x
Special counterweight	•	
Customized colors (without DB authorization)	•	
Additional working light on counterweight		•



Hydraulics

	s	o
Hydraulic tank shut-off valve	•	
Attachment kit	•	
Grab rotation circuit	•	
Pressure cut off	•	
Centralised hydraulic pressure test points	•	
Accumulator for controlled lowering of equipment with engine turned off	•	
Filter with micro filtration (5 µm)	•	
Electronic pump regulation	•	
Stepless mode system (ECO)	•	
Flow compensation	•	
Four mixed modes, can also be adjusted	•	
Bi-pass filter		•
Back up hydraulics in case of engine failure		x
Bio degradable hydraulic oil		•



Engine

	s	o
Turbo charger	•	
Unit pump system	•	
After-cooled	•	
Sensor controlled engine idling	•	
Air filter with pre-cleaner main- and safety element	•	
Liebherr particle filter		•



Operator's Cab

	s	o
Displays for engine operating condition	•	
Hourmeter also readable from outside the cab	•	
Roof window made of bullet-proof glass	•	
All-round adjustable roof vent	•	
Two seater cab (for EBO gauge)	•	
Pressure indication of rail axles on the ZW display	•	
6-way adjustable seat	•	
Seat and consoles independently adjustable	•	
Fire extinguisher, first aid kit and ÖCU-bag	•	
Front screen plane – laminated safety glass	•	
Removable customized foot mat	•	
Speed indication on the ZW display	•	
Dome light	•	
Cab heater with defroster	•	
Air conditioning	•	
Steering wheel lock for rail travel	•	
Steering column adjustable	•	
Independent control of air horn and emergency brake by second person	•	
Preparation for radio installation	•	
Rain hood over front window opening	•	
Wiper/washer for roof window	•	
Wiper/washer for rear window	•	
Door with sliding window	•	
Safety flag and air horn	•	
Sun roller blind/pocket torch	•	
Cruise-control	•	
Warning triangle and warning light	•	
Wiper/washer front screen	•	
Cigarette lighter and ashtray	•	
Additional working lights	•	
Air suspension operator's seat with heating and head-rest		•
Electric cool box		•
Stereo radio		•
Rotating beacon		•
Auxiliary heating		•
Electronic immobiliser		•



Equipment

	s	o
Working lights on boom	•	
Pipework for grab on sticks	•	
Sealed bearings	•	
Stick prepared for quick hitch stick	•	
SAE-dbl flange connection for all hi-pressure lines	•	
Change over valves for bucket/grab use	•	
Locking mechanism for bucket linkage during grab operation	•	
Semi-automatic central lubrication system	•	
Cylinders with end damping	•	
Boom height limiter for work under overhead lines		x
Free rotating load hook		•
Liebherr range of grabs		•
„Likufix“ intelligent quick hitch system		•
Safety check valves on hoist cylinders		x
Safety check valves on stick cylinder		•
Hose quick connections		•
Hydraulic or mechanical quick hitch		•
Special paintwork (without DB authorization)		•
Special buckets and other attachments		•
Overload warning device		x
Fully-automatic central lubrication system		•
Additional working lights on stick		•

S = Standard, O = Option, x = Required for acceptance by the German RR (DB) – regulation DS 931.01 03

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

All illustrations and data may differ from standard equipment. Subject to change without notice.

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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, too. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

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