

Wheeled Excavator

A 312
Litronic®

Operating Weight: 12,900 - 15,000 kg
Engine Output: 81 kW / 110 HP
Bucket Capacity: 0.17 - 0.80 m³



LIEBHERR

A 312

Litronic

Operational weight: 12,900 - 15,000 kg

Engine output: 81 kW / 110 HP

Bucket capacity: 0.17 - 0.80 m³



Performance

Liebherr compact excavators excel with state-of-the-art technology and high-quality workmanship. Designed for maximum productivity, their intelligent construction allows full exploitation of potential even in confined spaces. Perfectly optimised Liebherr components give the A 312 Litronic outstanding operational characteristics.

Economy

The Liebherr Litronic system increases the performance of the machines and reduces fuel consumption. Tailor-made servicing is available through the individual service program from Liebherr. Long service intervals as well as short and quick servicing times increase cost-effectiveness of the compact excavators.

Comfort

The A 312 Litronic compact excavators offer the operator a generous workplace with state-of-the-art ergonomic design. The large window surfaces and sloping edges provide a safe overview of the entire construction area.

Reliability

With over 50 years experience in producing hydraulic excavators, Liebherr offers unique competence advantages in both manufacturing and reliability. Equipped with innovative features such as additional centrifugal pre-filters for intake air and fuel, advanced technologies are already built-in to the A 312 Litronic.





Equipment

- Dual hoisting cylinders
- Kinematics for higher hoist capacities





Performance

Liebherr compact excavators excel with state-of-the-art technology and high-quality workmanship. Designed for maximum productivity, their intelligent construction allows full exploitation of potential even in confined spaces. Perfectly optimised Liebherr components give the A 312 Litronic outstanding operational characteristics.

High load performance

High load capacities

Intelligent arrangement of the uppercarriage coupled with ideal engine positioning for supporting the ballast allows excellent balance.

Performance without compromise

Maximum performance and power are available at all times and guarantee high load performance.

High bucket fill factor

The digging attachments have been specially designed by Liebherr for high fill factors. The shape of the bucket ensures good penetration characteristics and guarantees excellent productivity.

Stable base

Important precondition

Specially selected solid steel components in conjunction with the proven sump design provide excellent stability under load conditions through the use of the stabiliser blade, 2 pt. outriggers and stabiliser blade with 2 pt. outriggers.

Transmission power

The powershift transmission, fitted as standard, allows fast hill driving and changing of gear without stopping. The creeper gear allows precise manoeuvring even in difficult terrain.

Litronic

- Increases the performance of the excavator
- Reduces fuel consumption
- Allows maximum sensitivity



Robust undercarriage

- Different undercarriage variants with securely welded stabilisers ensure secure ground-holding, maximum stability and long operational life regardless of application
- Stabiliser and leveller blade in box-type design. Just two pivots ensure high torsion rigidity



Intelligent cooling

- Thermostatically controlled cooling system – works on demand, reduces fuel consumption and noise levels
- Long operational life of the transmission components
- Accelerated warm-up phase and regulation of cab temperature



Economy

The Liebherr Litronic system increases the performance of the machines and reduces fuel consumption. Tailor-made servicing is available through the individual service program from Liebherr. Long service intervals as well as short and quick servicing times increase cost-effectiveness of the compact excavators.

Low operating costs

Automatic idling

During periods of inactivity (machine not driving or working), the engine speed is reduced down to idling via a sensor, reducing fuel consumption and emissions.

Liebherr Tool Control

As soon as the hydraulic attachment tool has been changed, the necessary pressure values and pump flows can be accessed at the touch of a button. Up to 10 values can be saved under each tool name. Changing tools couldn't be quicker or easier.

Maintenance points

Service points for the engine, such as filter or fill level displays, are easily accessible. The large rear flap allows simple and quick maintenance.

Comprehensive service program

Tailor-made servicing is available through the individual service program from Liebherr. With exchangeable components from the ReMan, ReBuilt and Repair programs, an ideal solution for every requirement is available with approved manufacturer quality.

Future-proof and stable in value

Tailor-made services

Service personnel trained directly at the manufacturers offer tailor-made services. Direct contact with Liebherr is ensured by the full integration of all service centres within the Liebherr logistics system. Electronic access to our world-wide replacement parts management system allows a round-the-clock replacement part availability of 98%.

High resale value

Liebherr excavators are built for a long operational life through the use of high-quality materials and durable quality of workmanship, thus guaranteeing maximum stability of value.



Likufix

- Quick-change system for hydraulic and mechanical attachments
- Changing of all attachments from the operator cab
- Considerable time-saving when compared to manual connection of the hydraulic hoses



Engine

- Water-cooled diesel engine with Common Rail, turbo-charged
- Large 4.0 l displacement
- Operational and driving engine speed of only 1800 rpm



Storage space—everything has its place

- Large, lockable stowing box in the uppercarriage
- Two tool boxes in the undercarriage, fitted as standard





Comfort

The A 312 Litronic compact excavators offer the operator a generous workplace with state-of-the-art ergonomic design. The large window surfaces and sloping edges provide a safe overview of the entire construction area.

Mobile comfort

Excellent visibility

The carefully designed uppercarriage with lower height, large window surfaces and rounded edges increase visibility and ensure a safe view over the entire working area.

Easy climb

Wide steps, ergonomically designed handles and an adjustable steering column provide an easy and comfortable climb into the Liebherr operator cab.

Pleasant environment

The low engine speed, in conjunction with high-quality noise reduction and optimised hydraulic components, ensure pleasant levels of internal and external noise. Noise levels are similar to those of modern diesel passenger cars.

Spacious

Additional storage areas in the uppercarriage and undercarriage provide easy and generous storage of everyday tools.

Tempomat

Constantly adjustable storage of the selected engine speed promotes convenient driving and operating.

Automotive driving

When driving on road, your moving speed is easy to regulate with the engine speed via the accelerator pedal.

Maintenance benefits as standard

Easy accessibility

Working on the engine is made easy due to the large engine compartment flap.

Ease of servicing

Delivered as standard, the hydraulic tank shut-off valve disconnects the system and guarantees easy servicing work on the hydraulic system.

Spacious cab

- Operator's seat adjustable to operator's weight and with height adjustment. Horizontally adjustable with or without console
- Adjustable steering column
- Large roof window
- Sunblind



Foot room

- Ergonomically laid-out foot pedals for relaxing and non-tiring operation
- Steering column adjustment via a handy foot lever
- Non-slip foot mat with horizontal Strips for easy cleaning of cab



Liebherr hydraulic cylinder

- Optimised sizes for every machine
- High-quality pin rod surface coating
- The Liebherr cylinders are fitted with a special long-life sealant system
- End position dampening on both sides in cylinders





Reliability

With over 50 years experience in producing hydraulic excavators, Liebherr offers unique competence advantages in both manufacturing and reliability. Equipped with innovative features such as additional centrifugal pre-filters for intake air and fuel, advanced technologies are already built-in to the A 312 Litronic.

Quality down to the last detail

Liebherr components

Components such as swing ring, swing drive, hydraulic cylinder and the electronic components are developed, tested and manufactured by Liebherr especially for construction machinery. Components such as swing ring and swing drive are optimised to each other in the manufacturing phase, maintaining consistently high-quality standards.

Functional safety

Delivered as standard, safety features such as automatic check valves on hoist cylinders ensure high safety standards. The operator can concentrate fully on the task because the integrated on-board electronics constantly compare data with predefined target values.

High-quality features

Fuel filter

The Liebherr centrifugal fuel filter system discharges water and dirt particles with 100% reliability and is delivered as standard.

Magnet rod

Delivered as standard, the magnetic rod in the hydraulic system extends the operational life of the oil.

Cleaner air

- Intake air is drawn in from the cleanest area behind the cab
- Filtering out of 96% of all dust and water particles by upstream centrifugal filter
- The end result is extended operational life of engine and long intervals between filter change



Liebherr key technologies

- Liebherr ball bearing swing ring, internal teeth
- Liebherr swing assembly drive for high swing moment
- Manufactured at competence centres in Germany with state-of-the-art production processes

Technical Data



Engine

Rating per ISO 9249	81 kW (110 HP) at 1,800 RPM
Model	Deutz TCD2012 L04 according to level IIIA/Tier 3
Type	4 cylinder in-line
Bore/Stroke	101/126 mm
Displacement	4.0 l
Engine operation	4-stroke diesel Common Rail turbo-charged
Exhaust emissions	in accordance with EC-guidelines
Cooling system	water-cooled with stepless, thermostatic and controlled fan
Air cleaner	dry-type air cleaner with pre-cleaner and automatic dust discharge (TopAir), main and safety elements
Fuel tank	210 l
Engine idling	sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 92 Ah/12 V
Alternator	24 V/55 A



Hydraulic System

Hydraulic pump	Liebherr, variable displacement, swashplate pump
Max. flow	230 l/min.
Max. hydr. pressure	350 bar
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic horsepower regulation, pressure cut-off, load sensing and torque controlled swing drive priority
Hydraulic tank capacity	150 l
Hydraulic system capacity	max. 240 l
Filtration	one main return filter with integrated partial micro filtration (5 µm)
Cooling system	compact cooling system comprising cooling unit for water, hydraulic oil and charge air with stepless, thermostatically controlled fan, fan can be folded away for comfortable cleaning of the radiator
Engine speed and output tuning	stepless alignment of engine output and hydraulic power via engine speed variable mode-settings



Hydraulic Controls

Power distribution	via control valve with integrated safety valves, simultaneous and independent operation of travel drive, swing drive and work
Control type	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedal
Additional functions	via switch and/or proportional foot pedals
Option	Liebherr-Proportional-Controls, proportionally acting transmitters on the joysticks for additional hydraulic functions



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 – 10 RPM stepless
Swing torque	38 kNm (acceleration adjustable)
Holding brake	pedal controlled positioning brake



Operator's Cab

Cab	largely dimensioned ergonomic cab resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window, large roof window, sun visor
Operator seat	shock absorbing suspension, adjustable to operator's weight, 6-way adjustable seat, backward/forward seat adjusting with automatic height adjustment
Joysticks	integrated into adjustable seat consoles
Monitoring	ergonomically arranged, non-glare instrumentation, menu-driven retrieval of current operating conditions via display, automatic monitoring, display, warning (acoustic and visual) and saving of anomalous operating conditions, such as engine overheating and excessively low engine oil pressure or hydraulic oil level
Digital hour meter	visible from outside
Heating system	hot water heat exchanger to provide heated fresh air or circulated air, with additional front window air vents, operating unit in right console
Noise emission	
ISO 6396	L_{pA} (inside cab) = 72 dB(A)
2000/14/EC	L_{WA} (surround noise) = 99 dB(A)
Sound level in correspondence	with "Blue Angel" guidelines.



Undercarriage

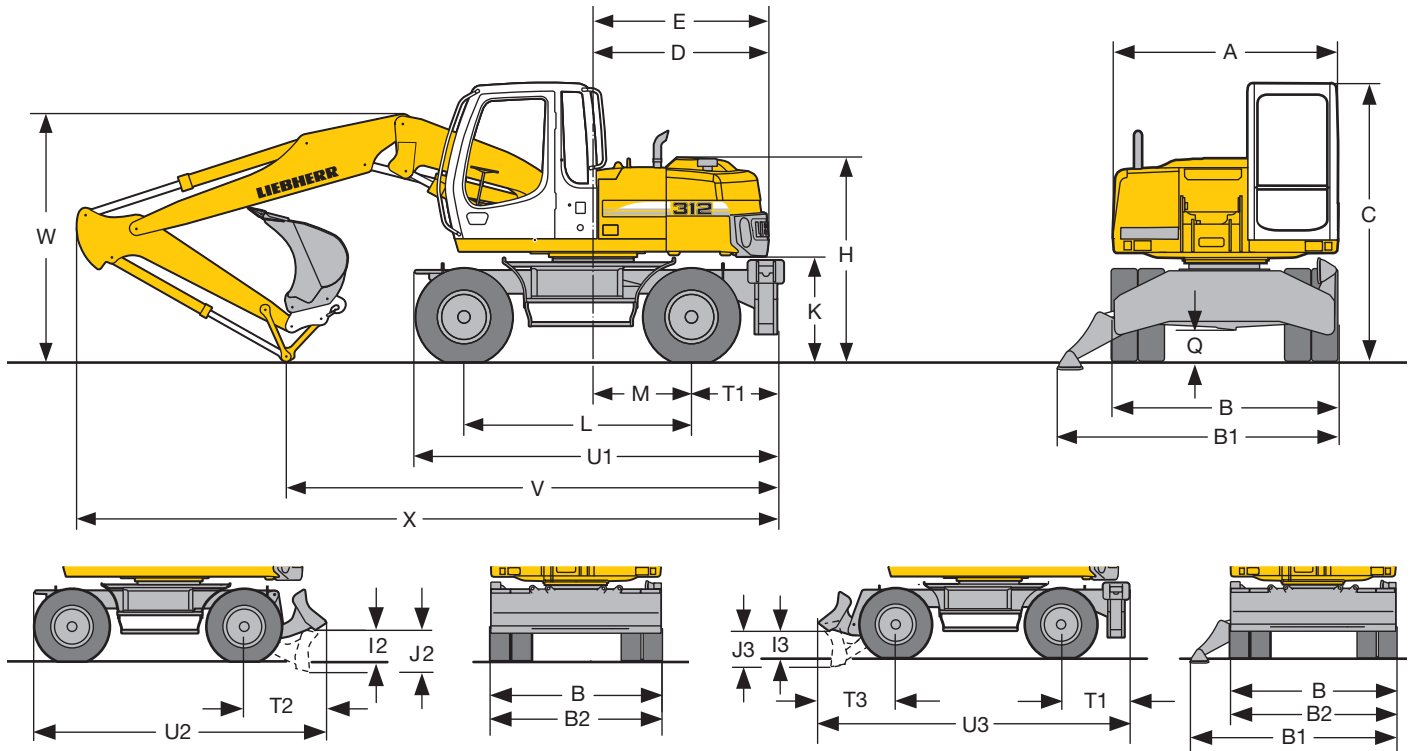
Drive	variable flow swashplate motor with automatic brake valve
Transmission	oversized two speed power shift transmission with additional creeper speed
Travel speed	0 – 1.5 km/h (creeper speed off road) 0 – 5.0 km/h (off road) 0 – 6.0 km/h (creeper speed on road) 0 – 20.0 km/h (road travel) 0 – max. 30.0 km/h Speeder (Option)
Driving operation	automotive driving with accelerator pedal, tempo-mat function: stepless saving of accelerator pedal position, both off- and on-road
Axles	26 t excavator axles, automatic or operator controlled front axle oscillation lock
Brakes	steering and rigid axle with wet, maintenance-free multi disc brakes with minimized backlash. Spring applied/pressure released parking brake integrated into gear box
Stabilization	stabilizing blade (adjustable during travel for dozing) 2 point outriggers stabilizing blade + 2 point outriggers



Attachment

Hydraulic cylinders	Liebherr cylinders with special seal system. Shock absorption
Pivots	sealed, low maintenance
Lubrication	centralized in easily accessible locations

Dimensions



	mm
A	2,510
B	2,550
B1	3,750
B2	2,550
C	3,120
D	1,945
E	1,945
H	2,285
I2	450
I3	450
J2	625
J3	625
K	1,185
L	2,540
M	1,100
Q	360
T1	1,237
T2	1,230
T3	1,180
U1	4,125
U2	4,315
U3	4,760

E = Tail radius

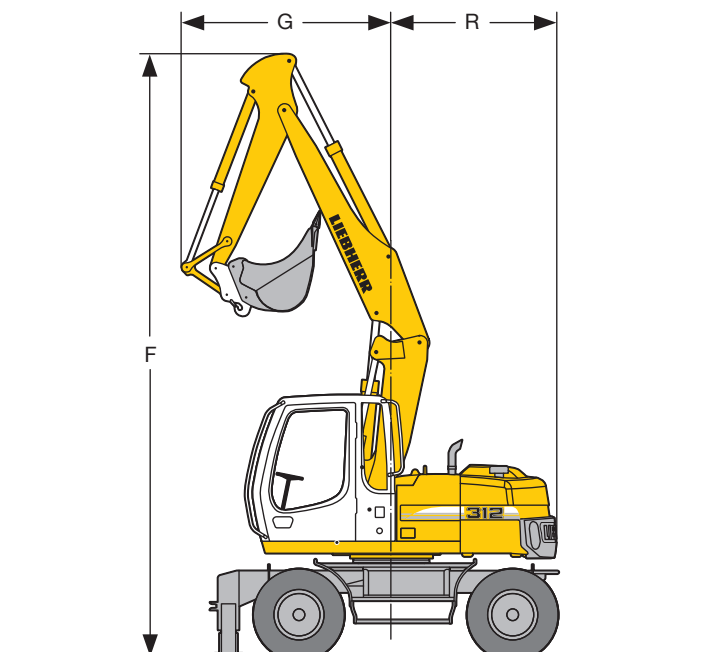
Tires 10.00-20

Boom	Stick	F	G	R
	m	mm	mm	mm
hydr. adjustable boom	2.05	7,200	2,500	1,945
hydr. adjustable boom	2.25	7,200	2,400	1,945
gooseneck boom	2.05	6,450	2,950	1,945
gooseneck boom	2.25	6,450	2,950	1,945

	Stick	Hydr. Adjustable Boom 3.20 m			Gooseneck Boom 4.50 m		
		stabil. blade	2 pt. outr.	blade + 2 pt. outr.	stabil. blade	2 pt. outr.	blade + 2 pt. outr.
	m	mm	mm	mm	mm	mm	
V	2.05	5,750	5,550	5,550	5,200	5,000	5,500*
	2.25	5,400	5,200	5,200	4,900	4,700	5,450*
W	2.05	2,900	2,900	2,900	2,900	2,900	2,900*
	2.25	2,850	2,800	2,850	2,850	2,850	3,050*
X	2.05	8,250	8,050	8,050	7,850	7,650	8,100*
	2.25	8,200	8,000	8,000	7,750	7,650	8,100*

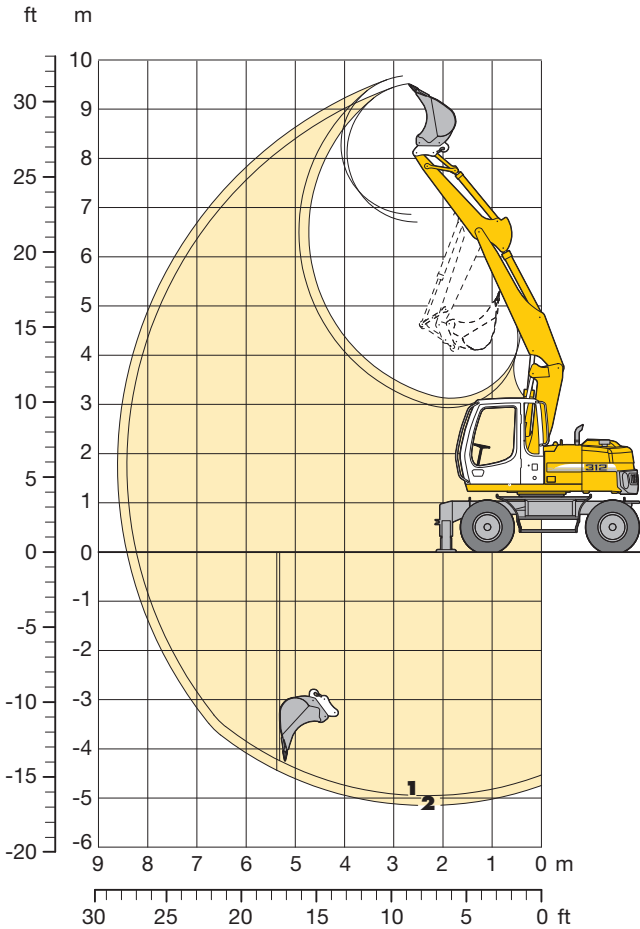
Dimensions are with attachment over steering axle

* Attachment over digging axle for shorter transport dimensions



Backhoe Attachment

with Hydr. Adjustable Boom 3.20 m



Digging Envelope with Quick Change Adapter

		1	2
Stick length	m	2.05	2.25
Max. digging depth	m	4.95	5.15
Max. reach at ground level	m	8.25	8.45
Max. dumping height	m	6.70	6.85
Max. teeth height	m	9.50	9.70
Min. attachment radius	m	2.50	2.40

Digging Forces without Quick Change Adapter

		1	2
Max. digging force (ISO 6015)	kN	72.7	67.9
	t	7.4	6.9
Max. breakout force (ISO 6015)	kN	79.1	79.1
	t	8.1	8.1
Max. breakout force with ripper bucket		111.3 kN (11.3 t)	
Max. possible digging force (stick 1.70 m)		82.9 kN (8.5 t)	

Operating Weight

The operating weight includes the basic machine with 8 tires plus spacer rings, hydr. adjustable boom 3.20 m, stick 2.25 m, quick change adapter 33 and bucket 850 mm/0.50 m³.

Undercarriage versions	Weight
A 312 Litronic [®] with stabilizer blade	13,400 kg
A 312 Litronic [®] with 2 pt. outriggers	13,500 kg
A 312 Litronic [®] with stabilizer blade + 2 pt. outriggers	14,500 kg

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
300 ²⁾	0.17	220	□	□	□	□	□	□	□	□
400 ²⁾	0.24	250	□	□	□	□	□	□	□	□
500 ²⁾	0.28	250	□	□	□	□	□	□	□	□
550 ²⁾	0.29	260	□	□	□	□	□	□	□	□
650 ²⁾	0.36	290	□	□	□	□	□	□	□	□
850 ²⁾	0.50	340	□	□	□	□	□	□	□	□
1,050 ²⁾	0.65	380	△	■	□	△	□	□	□	□
1,250 ²⁾	0.80	430	■	▲	■	■	□	□	□	□
300 ³⁾	0.18	210	□	□	□	□	□	□	□	□
400 ³⁾	0.26	240	□	□	□	□	□	□	□	□
500 ³⁾	0.30	240	□	□	□	□	□	□	□	□
550 ³⁾	0.31	250	□	□	□	□	□	□	□	□
650 ³⁾	0.39	270	□	□	□	□	□	□	□	□
850 ³⁾	0.53	320	□	□	□	□	□	□	□	□
1,050 ³⁾	0.71	370	■	■	△	△	□	□	□	□
1,250 ³⁾	0.87	420	▲	▲	■	■	□	△	□	□

* 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⁾ Bucket with teeth ³⁾ Bucket with cutting lip

Buckets up to 400 mm cutting width with limited digging depth

Max. material weight □ = ≤ 1.8 t/m³, △ = ≤ 1.5 t/m³, ■ = ≤ 1.2 t/m³, ▲ = not authorized

Lift Capacities

with Hydr. Adjustable Boom 3.20 m

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		m		
		Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	In longitudinal position of undercarriage	In longitudinal position of undercarriage	
7.5	Stabilizers raised									2.5*	2.5*	4.09
	Stabilizer blade down									2.5*	2.5*	
	2 pt. outriggers down									2.5*	2.5*	
6.0	Blade + 2 pt. down									2.5*	2.5*	5.70
	Stabilizers raised			3.1*	3.7*					2.0	2.2*	
	Stabilizer blade down			3.4	3.7*					2.2*	2.2*	
4.5	2 pt. outriggers down			3.7*	3.7*					2.2*	2.2*	6.59
	Blade + 2 pt. down	5.3*	5.3*	3.1	4.0*	1.9	3.1			1.5	2.1*	
	Stabilizers raised	5.3*	5.3*	3.4	4.0*	2.1	3.4*			1.7	2.1*	
3.0	Stabilizer blade down	5.3*	5.3*	4.0*	4.0*	3.3	3.4*			2.1*	2.1*	7.05
	2 pt. outriggers down	5.3*	5.3*	4.0*	4.0*	3.3	3.4*			2.1*	2.1*	
	Blade + 2 pt. down	5.3*	5.3*	4.0*	4.0*	3.3	3.4*			2.1*	2.1*	
1.5	Stabilizers raised	5.3	7.2*	3.0	4.6*	1.8	3.1			1.3	2.2*	7.15
	Stabilizer blade down	5.9	7.2*	3.3	4.6*	2.1	3.6*			1.5	2.2*	
	2 pt. outriggers down	7.2*	7.2*	4.0	4.6*	2.6	3.6*			1.9	2.2*	
0	Blade + 2 pt. down	7.2*	7.2*	4.6*	4.6*	3.3	3.6*			2.2*	2.2*	6.93
	Stabilizers raised	5.2*	7.9*	3.0	4.6	1.8	3.0			1.2	2.2	
	Stabilizer blade down	5.8	7.9*	3.3	5.1*	2.0	3.7*			1.4	2.4*	
-1.5	2 pt. outriggers down	7.2	7.9*	4.0	5.1*	2.5	3.7*			1.8	2.4*	6.34
	Blade + 2 pt. down	7.9*	7.9*	4.8*	5.1*	3.2	3.7*			2.3	2.4*	
	Stabilizers raised	5.0	8.2*	2.8	4.7*	1.6	2.9			1.2	2.2	
-3.0	Stabilizer blade down	5.8	8.2*	3.1	5.2*	1.9	3.8*			1.4	2.8*	5.25
	2 pt. outriggers down	7.3	8.2*	4.0	5.2*	2.4	3.8*			1.9	2.8*	
	Blade + 2 pt. down	8.2*	8.2*	4.8*	5.2*	3.1	3.8*			2.4	2.8*	

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		m		
		Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	Can be slewed through 360°	In longitudinal position of undercarriage	In longitudinal position of undercarriage	
7.5	Stabilizers raised									2.2*	2.2*	4.42
	Stabilizer blade down									2.2*	2.2*	
	2 pt. outriggers down									2.2*	2.2*	
6.0	Blade + 2 pt. down									2.2*	2.2*	5.94
	Stabilizers raised			3.1	3.6*					1.9	2.0*	
	Stabilizer blade down			3.5	3.6*					2.0*	2.0*	
4.5	2 pt. outriggers down			3.6*	3.6*					2.0*	2.0*	6.80
	Blade + 2 pt. down	5.0*	5.0*	3.1*	3.9*	1.9	3.1			1.4	1.9*	
	Stabilizers raised	5.0*	5.0*	3.4	3.9*	2.1	3.3*			1.6	1.9*	
3.0	Stabilizer blade down	5.0*	5.0*	3.9*	3.9*	2.7	3.3*			1.9*	1.9*	7.24
	2 pt. outriggers down	5.0*	5.0*	3.9*	3.9*	3.3	3.3*			1.9*	1.9*	
	Blade + 2 pt. down	5.0*	5.0*	3.9*	3.9*	3.3	3.3*			1.9*	1.9*	
1.5	Stabilizers raised	5.3*	6.9*	3.0	4.5*	1.9	3.1			1.2	2.0*	7.35
	Stabilizer blade down	5.9	6.9*	3.3*	4.5*	2.1	3.5*			1.4	2.0*	
	2 pt. outriggers down	6.9*	6.9*	4.0	4.5*	2.6	3.5*			1.8	2.0*	
0	Blade + 2 pt. down	6.9*	6.9*	4.5*	4.5*	3.2*	3.5*			2.0*	2.0*	7.13
	Stabilizers raised	5.2	7.8*	3.0	4.6	1.8	3.0			1.2	2.1	
	Stabilizer blade down	5.7	7.8*	3.2	5.0*	2.0	3.7*			1.3	2.1*	
-1.5	2 pt. outriggers down	7.2*	7.8*	3.9*	5.0*	2.6	3.7*			1.7	2.1*	6.56
	Blade + 2 pt. down	7.8*	7.8*	4.8	5.0*	3.2*	3.7*			2.1*	2.1*	
	Stabilizers raised	5.1	8.1*	2.8	4.6*	1.6	2.9			1.2	2.1	
-3.0	Stabilizer blade down	5.8	8.1*	3.1	5.1*	1.9	3.7*			1.3	2.5*	5.52
	2 pt. outriggers down	7.3	8.1*	4.0	5.1*	2.4	3.7*			1.8	2.5*	
	Blade + 2 pt. down	8.1*	8.1*	4.8	5.1*	3.1	3.7*			2.3	2.5*	

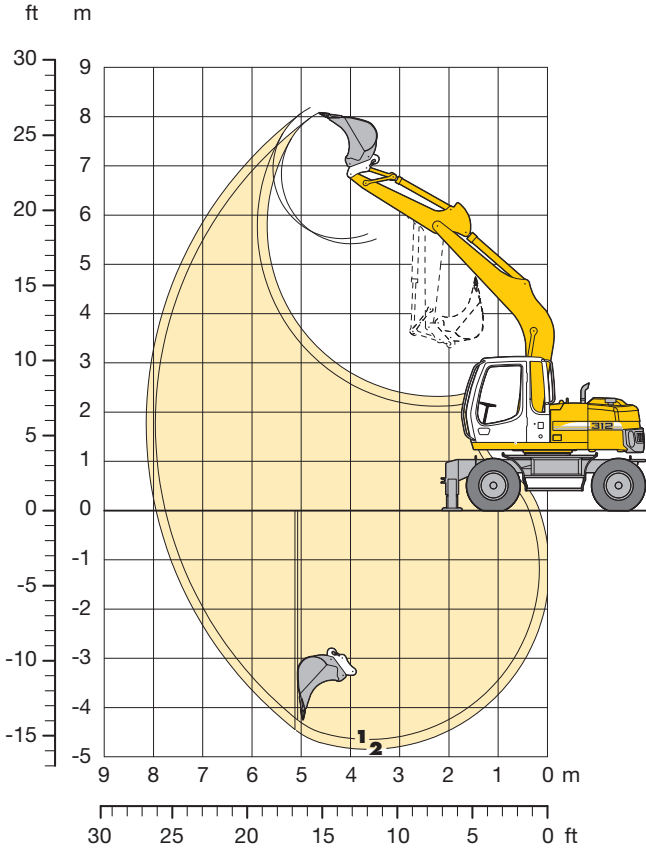
Height Can be slewed through 360° In longitudinal position of undercarriage Max. reach * Limited by hydr. capacity

The lift capacities on the load hook of the Liebherr quick-change adapter 33 without grab attachment 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 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 on the quick-change adapter (max. 5 t). Without the quick-change adapter, lift capacities will increase by up to 110 kg.

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.

Backhoe Attachment

with Gooseneck Boom 4.50 m



Digging Envelope with Quick Change Adapter

		1	2
Stick length	m	2.05	2.25
Max. digging depth	m	4.65	4.85
Max. reach at ground level	m	7.75	7.95
Max. dumping height	m	5.50	5.60
Max. teeth height	m	8.10	8.20
Min. attachment radius	m	2.95	2.90

Digging Forces without Quick Change Adapter

		1	2
Max. digging force (ISO 6015)	kN	72.7	67.9
	t	7.4	6.9
Max. breakout force (ISO 6015)	kN	79.1	79.1
	t	8.1	8.1

Max. breakout force with ripper bucket 111.3 kN (11.3 t)
 Max. possible digging force (stick 1.70 m) 82.9 kN (8.5 t)

Operating Weight

The operating weight includes the basic machine with 8 tires plus spacer rings, gooseneck boom 4.50 m, stick 2.25 m, quick change adapter 33 and bucket 850 mm/0.50 m³.

Undercarriage versions	Weight
A 312 Litronic [®] with stabilizer blade	12,900 kg
A 312 Litronic [®] with 2 pt. outriggers	13,000 kg
A 312 Litronic [®] with stabilizer blade + 2 pt. outriggers	14,000 kg

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
300 ²⁾	0.17	220	□	□	□	□	□	□	□	□
400 ²⁾	0.24	250	□	□	□	□	□	□	□	□
500 ²⁾	0.28	250	□	□	□	□	□	□	□	□
550 ²⁾	0.29	260	□	□	□	□	□	□	□	□
650 ²⁾	0.36	290	□	□	□	□	□	□	□	□
850 ²⁾	0.50	340	□	□	□	□	□	□	□	□
1,050 ²⁾	0.65	380	□	△	□	□	□	□	□	□
1,250 ²⁾	0.80	430	■	■	□	△	□	△	□	△
300 ³⁾	0.18	210	□	□	□	□	□	□	□	□
400 ³⁾	0.26	240	□	□	□	□	□	□	□	□
500 ³⁾	0.30	240	□	□	□	□	□	□	□	□
550 ³⁾	0.31	250	□	□	□	□	□	□	□	□
650 ³⁾	0.39	270	□	□	□	□	□	□	□	□
850 ³⁾	0.53	320	□	□	□	□	□	□	□	□
1,050 ³⁾	0.71	370	△	△	□	□	□	□	□	□
1,250 ³⁾	0.87	420	■	■	△	△	△	△	△	△

* 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) Bucket with teeth 3) Bucket with cutting lip

Buckets up to 400 mm cutting width with limited digging depth

Max. material weight □ = ≤ 1.8 t/m³, △ = ≤ 1.5 t/m³, ■ = ≤ 1.2 t/m³, ▲ = not authorized

Lift Capacities





with Gooseneck Boom 4.50 m

Stick 2.05 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		m	
		↕	↔	↕	↔	↕	↔	↕	↔		
7.5	Stabilizers raised										
	Stabilizer blade down										
	2 pt. outriggers down										
6.0	Blade + 2 pt. down										
	Stabilizers raised							1.7*	1.7*	5.10	
	Stabilizer blade down							1.7*	1.7*		
2 pt. outriggers down							1.7*	1.7*			
4.5	Blade + 2 pt. down							1.7*	1.7*	6.08	
	Stabilizers raised			3.0	3.4*	1.8	1.9*	1.6*	1.6*		6.58
	Stabilizer blade down			3.3	3.4*	1.9*	1.9*	1.6*	1.6*		
2 pt. outriggers down			3.4*	3.4*	1.9*	1.9*	1.6*	1.6*			
3.0	Blade + 2 pt. down			3.4*	3.4*	1.9*	1.9*	1.6*	1.6*	6.69	
	Stabilizers raised	5.1	5.9*	2.7	4.1*	1.8	3.0	1.5	1.7*		6.45
	Stabilizer blade down	5.8	5.9*	3.1	4.1*	2.0	3.4*	1.7*	1.7*		
2 pt. outriggers down	5.9*	5.9*	3.9	4.1*	2.5	3.4*	1.7*	1.7*			
1.5	Blade + 2 pt. down	5.9*	5.9*	4.1*	4.1*	3.2	3.4*	1.7*	1.7*	6.81	
	Stabilizers raised	4.4	7.9*	2.5	4.4	1.7	2.9	1.4	1.9*		6.65
	Stabilizer blade down	5.1	7.9*	2.8	4.9*	1.9	3.7*	1.6	1.9*		
2 pt. outriggers down	6.9	7.9*	3.7	4.9*	2.4	3.7*	1.9*	1.9*			
0	Blade + 2 pt. down	7.9*	7.9*	4.7	4.9*	3.1	3.7*	1.9*	1.9*	6.03	
	Stabilizers raised	4.2	8.1*	2.4	4.3	1.6	2.8	1.4	2.3*		4.87
	Stabilizer blade down	4.8	8.1*	2.7	5.2*	1.8	3.8*	1.6	2.3*		
2 pt. outriggers down	6.6	8.1*	3.5	5.2*	2.3	3.8*	2.1	2.3*			
-1.5	Blade + 2 pt. down	8.1*	8.1*	4.6	5.2*	3.0	3.8*	2.3*	2.3*	4.60	
	Stabilizers raised	4.2	7.5*	2.3	4.2			1.6	2.9		5.81
	Stabilizer blade down	4.8	7.5*	2.6	5.0*			1.9	3.2*		
2 pt. outriggers down	6.6	7.5*	3.5	5.0*			2.4	3.2*			
-3.0	Blade + 2 pt. down	7.5*	7.5*	4.5	5.0*			3.1	3.2*	4.60	
	Stabilizers raised	4.3	5.9*	2.4	3.9*			2.3	3.8*		4.60
	Stabilizer blade down	4.9	5.9*	2.7	3.9*			2.6	3.8*		
2 pt. outriggers down	5.9*	5.9*	3.5	3.9*			3.4	3.8*			
Blade + 2 pt. down	5.9*	5.9*	3.9*	3.9*			3.8*	3.8*			

Stick 2.25 m

m	Undercarriage	3.0 m		4.5 m		6.0 m		7.5 m		m			
		↕	↔	↕	↔	↕	↔	↕	↔				
7.5	Stabilizers raised												
	Stabilizer blade down												
	2 pt. outriggers down												
6.0	Blade + 2 pt. down												
	Stabilizers raised									1.5*	1.5*	5.35	
	Stabilizer blade down									1.5*	1.5*		
2 pt. outriggers down									1.5*	1.5*			
4.5	Blade + 2 pt. down									1.5*	1.5*	6.29	
	Stabilizers raised							1.8	2.2*	1.4*	1.4*		6.77
	Stabilizer blade down							2.1	2.2*	1.4*	1.4*		
2 pt. outriggers down								2.2*	2.2*	1.4*	1.4*		
3.0	Blade + 2 pt. down							2.2*	2.2*	1.4*	1.4*	6.88	
	Stabilizers raised	5.1	5.6*	2.8	3.9*	1.8	3.0	1.4	1.5*	1.4	1.5*		6.65
	Stabilizer blade down	5.6*	5.6*	3.1	3.9*	2.0	3.3*	1.5*	1.5*	1.5*	1.5*		
2 pt. outriggers down	5.6*	5.6*	3.9*	3.9*	2.5	3.3*	1.5*	1.5*	1.5*	1.5*			
1.5	Blade + 2 pt. down	5.6*	5.6*	3.9*	3.9*	3.2	3.3*	1.5*	1.5*	1.5*	1.5*	6.88	
	Stabilizers raised	4.4	7.7*	2.5	4.5	1.7	2.9	1.3	1.7*	1.3	1.7*		6.65
	Stabilizer blade down	5.1	7.7*	2.8	4.7*	1.9	3.6*	1.5	1.7*	1.5	1.7*		
2 pt. outriggers down	6.9	7.7*	3.7	4.7*	2.4	3.6*	1.7*	1.7*	1.7*	1.7*			
0	Blade + 2 pt. down	7.7*	7.7*	4.7	4.7*	3.1	3.6*	1.7*	1.7*	1.7*	1.7*	6.03	
	Stabilizers raised	4.2	8.1*	2.3	4.3	1.6	2.8	1.4	2.0*	1.4	2.0*		6.65
	Stabilizer blade down	4.8	8.1*	2.7	5.2*	1.8	3.8*	1.5	2.0*	1.5	2.0*		
2 pt. outriggers down	6.6	8.1*	3.5	5.2*	2.3	3.8*	2.0*	2.0*	2.0*	2.0*			
-1.5	Blade + 2 pt. down	8.1*	8.1*	4.5	5.2*	3.0	3.8*	2.0*	2.0*	2.0*	2.0*	6.03	
	Stabilizers raised	4.1	7.7*	2.3	4.2	1.5	2.7	1.5	2.7	1.5	2.7		6.03
	Stabilizer blade down	4.8	7.7*	2.6	5.1*	1.8	3.0*	1.7	2.8*	1.7	2.8*		
2 pt. outriggers down	6.6	7.7*	3.4	5.1*	2.3	3.0*	2.3	2.8*	2.3	2.8*			
-3.0	Blade + 2 pt. down	7.7*	7.7*	4.5	5.1*	2.9	3.0*	2.8*	2.8*	2.8*	2.8*	4.87	
	Stabilizers raised	4.2	6.2*	2.3	4.1*			2.1	3.7*	2.1	3.7*		4.87
	Stabilizer blade down	4.9	6.2*	2.6	4.1*			2.4	3.7*	2.4	3.7*		
2 pt. outriggers down	6.2*	6.2*	3.5	4.1*			3.1	3.7*	3.1	3.7*			
Blade + 2 pt. down	6.2*	6.2*	4.1*	4.1*			3.7*	3.7*	3.7*	3.7*			

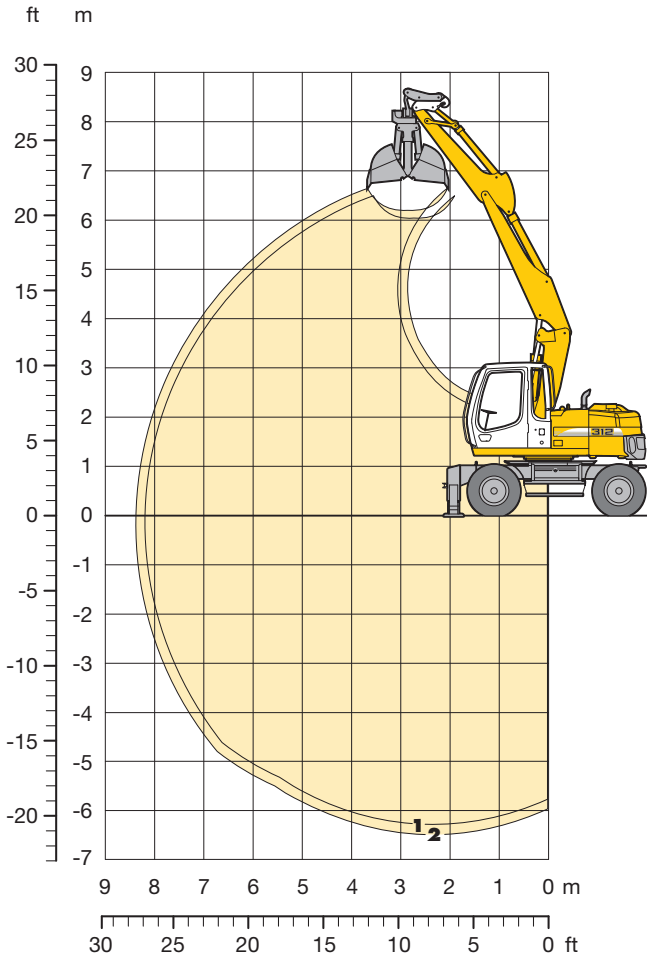
 Height
  Can be slewed through 360°
  In longitudinal position of undercarriage
  Max. reach
 * Limited by hydr. capacity

The lift capacities on the load hook of the Liebherr quick-change adapter 33 without grab attachment 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. 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 on the quick-change adapter (max. 5 t). Without the quick-change adapter, lift capacities will increase by up to 110 kg.

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.

Clamshell Attachment

with Hydr. Adjustable Boom 3.20 m



Digging Envelope with Quick Change Adapter

		1	2
Stick length	m	2.05	2.25
Max. digging depth	m	6.25	6.45
Max. reach at ground level	m	8.15	8.35
Max. dumping height	m	6.00	6.15

Clamshell Model

8 B

Max. tooth force	52 kN (5.3 t)
Max. torque of hydr. swivel	1.40 kNm

Operating Weight

The operating weight includes the basic machine with 8 tires plus spacer rings, hydr. adjustable boom 3.20 m, stick 2.25 m, quick change adapter 33 and clamshell model 8 B/0.30 m³ (600 mm without ejector).

Undercarriage versions	Weight
A 312 Litronic with stabilizer blade	13,900 kg
A 312 Litronic with 2 pt. outriggers	14,000 kg
A 312 Litronic with stabilizer blade + 2 pt. outriggers	15,000 kg

Clamshell Model 8 B Machine stability per ISO 10567* (75% of tipping capacity)

Width of shells mm	Capacity m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
320 ¹⁾	0.17	710	□	□	□	□	□	□	□	□
400 ¹⁾	0.22	750	□	□	□	□	□	□	□	□
600 ¹⁾	0.30	750	□	□	□	□	□	□	□	□
800 ¹⁾	0.40	800	△	△	□	□	□	□	□	□
1,000 ¹⁾	0.80	900	▲	▲	▲	▲	△	■	□	△
320 ²⁾	0.17	760	□	□	□	□	□	□	□	□
400 ²⁾	0.22	810	□	□	□	□	□	□	□	□
600 ²⁾	0.30	830	□	□	□	□	□	□	□	□
800 ²⁾	0.40	890	△	■	□	□	□	□	□	□

* 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

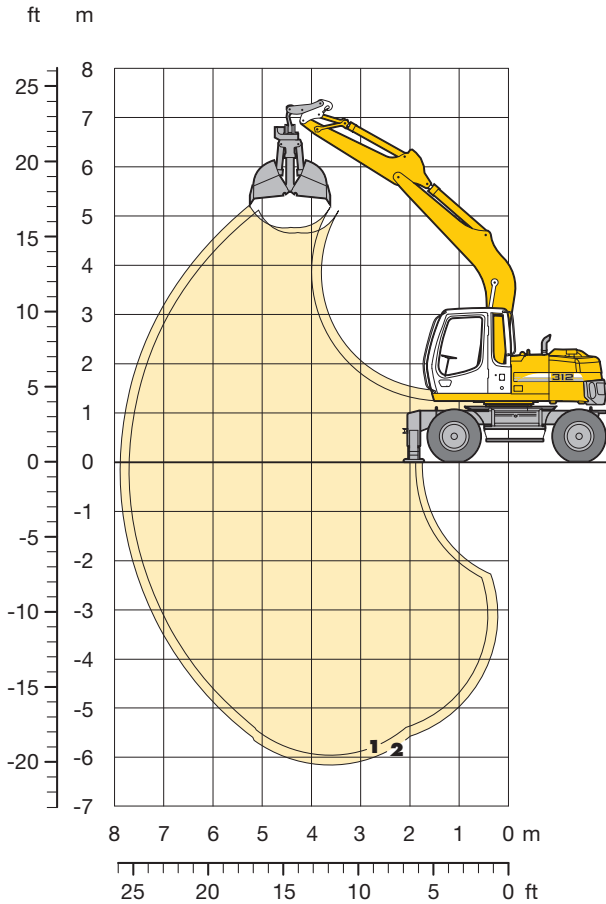
1) without ejector

2) with ejector

- = ≤ 1.8 t/m³ max. material weight
- △ = ≤ 1.5 t/m³ max. material weight
- = ≤ 1.2 t/m³ max. material weight
- ▲ = not authorized

Clamshell Attachment

with Gooseneck Boom 4.50 m



Digging Envelope with Quick Change Adapter

		1	2
Stick length	m	2.05	2.25
Max. digging depth	m	5.95	6.15
Max. reach at ground level	m	7.70	7.90
Max. dumping height	m	4.65	4.75

Clamshell Model

	8 B
Max. tooth force	52 kN (5.3 t)
Max. torque of hydr. swivel	1.40 kNm

Operating Weight

The operating weight includes the basic machine with 8 tires plus spacer rings, gooseneck boom 4.50 m, stick 2.25 m, quick change adapter 33 and clamshell model 8 B/0.30 m³ (600 mm without ejector).

Undercarriage versions	Weight
A 312 Litronic with stabilizer blade	13,400 kg
A 312 Litronic with 2 pt. outriggers	13,500 kg
A 312 Litronic with stabilizer blade + 2 pt. outriggers	14,500 kg

Clamshell Model 8 B Machine stability per ISO 10567* (75% of tipping capacity)

Width of shells mm	Capacity m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
320 ¹⁾	0.17	710	□	□	□	□	□	□	□	□
400 ¹⁾	0.22	750	□	□	□	□	□	□	□	□
600 ¹⁾	0.30	750	□	□	□	□	□	□	□	□
800 ¹⁾	0.40	800	□	□	□	□	□	□	□	□
1,000 ¹⁾	0.80	900	▲	▲	■	▲	■	▲	■	▲
320 ²⁾	0.17	760	□	□	□	□	□	□	□	□
400 ²⁾	0.22	810	□	□	□	□	□	□	□	□
600 ²⁾	0.30	830	□	□	□	□	□	□	□	□
800 ²⁾	0.40	890	□	□	□	□	□	□	□	□

* 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) without ejector

2) with ejector

- = ≤ 1.8 t/m³ max. material weight
- △ = ≤ 1.5 t/m³ max. material weight
- = ≤ 1.2 t/m³ max. material weight
- ▲ = not authorized

Attachments

Ditchcleaning Buckets/Tilting Buckets

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
Hydr. Adjustable Boom 3.20 m										
1,500 ³⁾	0.50	360	□	□	□	□	□	□	□	□
1,600 ²⁾	0.55	640	■	■	□	△	□	□	□	□
2,000 ²⁾	0.50	660	△	■	□	□	□	□	□	□
2,000 ³⁾	0.48	350	□	□	□	□	□	□	□	□
2,000 ³⁾	0.65	390	△	■	□	△	□	□	□	□
Gooseneck Boom 4.50 m										
1,500 ³⁾	0.50	360	□	□	□	□	□	□	□	□
1,600 ²⁾	0.55	640	□	△	□	□	□	□	□	□
2,000 ²⁾	0.50	660	□	□	□	□	□	□	□	□
2,000 ³⁾	0.48	350	□	□	□	□	□	□	□	□
2,000 ³⁾	0.65	390	□	△	□	□	□	□	□	□

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

Cutting width mm	Capacity ISO 7451 ¹⁾ m ³	Weight kg	Stabilizers raised		Stabilizer blade down		2 point outriggers down		Stabilizer blade + 2 pt. outriggers down	
			Stick length (m)		Stick length (m)		Stick length (m)		Stick length (m)	
			2.05	2.25	2.05	2.25	2.05	2.25	2.05	2.25
Hydr. Adjustable Boom 3.20 m										
1,500 ²⁾	0.60	660	■	■	△	△	□	□	□	□
Gooseneck Boom 4.50 m										
1,500 ²⁾	0.60	660	△	△	□	□	□	□	□	□

* 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

3) rigid ditchcleaning bucket

□ = ≤ 1.8 t/m³ max. material weight

△ = ≤ 1.5 t/m³ max. material weight

■ = ≤ 1.2 t/m³ max. material weight

▲ = not authorized

Equipment



Undercarriage

2-circuit brake system	•
Support individually controllable	+
Tires Mitas EM 22	•
Travel speed levels (four)	•
Piston rod protection support cylinders	+
Powershift transmission	•
Parking brake, maintenance-free	•
Tire variants, various	+
Pipe fracture safety on support cylinders	•
Custom paintwork undercarriage	+
Speeder*	+
Tool box on both sides, lockable	•
Central lubrication undercarriage	+



Uppercarriage

Refueling pump, electrical	+
Main battery switch for electrical system	•
Engine hood with gas spring	•
Uppercarriage doors, lockable	•
Uppercarriage lock electro-hydraulically activated from the cab	•
Beacon on engine hood	+
Custom paintwork uppercarriage	+
Power socket 12 V, 20 A	+
Central lubricating system, automatic	+
Central lubricating system, semi-automatic	•



Hydraulics

Stop cock between hydraulic tank and pump(s)	•
Pressure test fittings	•
Accumulator for controlled lowering of the attachment with the engine shut down	•
Hydraulic oil from -20 °C to +40 °C	•
Hydraulic oil filter with integrated microfilter	•
Liebherr hydraulic oil, biologically degradable	+
Liebherr hydraulic oil, specially for warm and cold regions	+
Mowing bucket and mulcher operation	+
Bypass filter	+
Change-over for controls (hammer/shear operation via pedals or joystick)	+



Engine

Fuel theft protection	+
Fuel preheating	+
Coolant preheating 230 V	+
Liebherr particle filter	+
Fold-away fan for comfortable cleaning	•
Fan drive, reversible	+
Air pre-cleaner	•



Operator's Cab

Hourmeter, readable from the outside	•
Roof window	•
Travel alarm	+
Fire extinguisher	+
Bottle holder	•
FOPS cab protection system	+
Slide-in front window	•
Floor mat removable	•
Coat hook	•
Air conditioner	+
Consoles and seat adjustable separately or in combination	•
Cooler, electrical	+
Steering column adjustable horizontally	•
LIDAT-Standard***	+
Liebherr proportional controls	+
Automatic engine shut-down (time adjustable)	+
Bullet proof glass (front and top)	+
Radio system	+
Smokers package	•
Rear view camera**	•
Back-up alarm	+
Beacon	+
Tinted glass	•
Windshield washer	•
Rear wiper	+
Wiper lower front window	+
Sliding window in the door	•
Sun roller blind	•
Auxiliary heater with timer	+
Immobilizer electronic (key code)	+
Auxiliary headlights (front resp. rear)	+



Attachment

Main boom, adjustable in height	+
Function rotating device incl. tubing	+
Function hammer/shear operation incl. tubing	+
Grapple sticks	+
Hoist limitation, electronic	+
Piston rod protection bucket cylinder	+
Piston rod protection stick cylinder	+
Load hook on stick	+
Shackle on stick	+
Leak oil line, additional for attaching tools	+
Liebherr ditchcleaning bucket program	+
Liebherr pallet forks	+
Liebherr quick change adapter, hydraulic or mechanical	+
Liebherr tilting bucket program	+
Liebherr backhoe bucket program	+
Liebherr tooth system	+
Liebherr clamshell grapple program	+
LIKUFIX, coupling hydraulic tools from the cab	+
Gooseneck boom	+
Pipe fracture safety boom cylinders	•
Pipe fracture safety stick resp. bucket cylinder	+
Hose quick coupling at end of stick	•
Custom painting for tools	+
Tool-Control, 10 tool adjustments selectable over the display	+
Overload warning device	•
Bottom chord protection for stick	+
Central lubricating system, expanded for connecting link	+
Central lubrication for quick change adapter	+

• = Standard, + = Option

* = not available in all countries, ** = country-dependent, *** = starting mid 2010

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.

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, too. 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 application.

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 100 companies with over 32,000 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



Printed in Germany by Eberl RG-BK-RP LHB/VF 10472356-3-04.10_enGB

Liebherr-Hydraulikbagger GmbH

Liebherrstraße 12, D-88457 Kirchdorf/Iller

☎ +49 7354 80-0, Fax +49 7354 80-7294

www.liebherr.com, E-Mail: info.lhb@liebherr.com