

Crawler Excavator

R 934 C
Litronic®

Operating Weight: 32,600 – 33,500 kg
Engine Output: 150 kW / 203 HP
Bucket Capacity: 1.45 - 1.80 m³



LIEBHERR

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Performance

Liebherr crawler excavators feature state-of-the-art technology and high-quality workmanship. The most important components of the drive system are all produced by Liebherr and are perfectly coordinated with one another. The engine generation, as further developed for the "C-series", assures an effective power delivery, a high degree of efficiency, long life expectancy and complies with the emission standard IIIA / Tier 3.

Reliability

High demand for performance and quality is consequently converted into landmark solutions to achieve the highest level of dependability and reliability. Liebherr has over 50 years experience in the production of hydraulic excavators and has an unparalleled competence in design and know-how.

Comfort

In the operator's station, the operator can look forward to a comfortable workstation that is designed according to the most up-to-date ergonomically know-how. The standard climate control provides a pleasant working environment in all weather conditions.

Liebherr crawler excavators are particularly service-friendly: Maintenance work is simply and quickly accomplished due to well accessible service points.

Economy

Liebherr crawler excavators stand for maximum productivity. The sensitive excavator controls assure optimal efficiency in the interaction of excavator hydraulics and electronics. A wide selection of attachments and buckets with various dimensions provide the correct choice for every application.



Experience progress

R 934 C

Liebherr System Technology

- Key-components such as engine, hydraulic pumps and motors, swing and travel gear boxes as well as electronic elements are developed and produced by Liebherr
- Manufacturing centers for components located in Germany and Switzerland assure a maximum of quality

Attachment

- Steel casting elements at every pivot point for longer service life
- Two separate pins with casted bell housing for optimal stress-flow
- Innovative concept with latest steelworks
- Centralized lubrication points for reduced maintenance time and less downtime

Hydraulic System

- Additional 3rd pump for swing circuit assures highest priority on swing function and increases productivity
- The on demand hydrostatic fan drive takes-off only the needed power to reduce fuel consumption

Undercarriage

- Combination of high-strength steel plates with steel castings for a smooth stress flow and longer life time
- Robust structures thanks to the X-shaped profile assure higher stability
- Integrated lashing eyes allow easy and safe transport (2x each in the front and rear)



ReGeneration Plus

- Quicker attachment lowering, less pressure loss and more safety
- Higher productivity due to optimization and consolidation of the functions “pressureless lowering”, “regeneration” and “load holding valves”
- Less energy consumption for less fuel consumption

Cabin

- Standard air conditioning creates a pleasant operator environment
- Ergonomically designed seat assures comfortable working conditions
- Generously-sized windows for optimal visibility

Engine

- Electronic engine speed sensing control and maximum output at low engine speed for less fuel consumption
- Environmental friendly and conform with Stage IIIA / Tier 3 emission standard
- Developed and produced by Liebherr in Switzerland



Technical Data



Engine

Rating per ISO 9249	150 kW (203 HP) at 1,800 RPM
Model	Liebherr D 934 L
	conform with stage IIIA/Tier 3 emission standard. For applications at altitude higher than 3,000 m please contact your local dealer
Type	4 cylinder in-line
Bore/Stroke	122/150 mm
Displacement	7.01 l
Engine operation	4-stroke diesel unit pump system turbo-charged and after-cooled reduced emissions
Cooling	water-cooled and integrated engine oil cooler
Air cleaner	dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	580 l
Standard	sensor controlled engine idling
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah/12 V
Starter	24 V/6.6 kW
Alternator	28 V/80 A



Hydraulic System

Hydraulic pump for attachment and travel drive	Liebherr variable flow, swash plate double pump
Max. flow	2 x 245 l/min.
Max. pressure	350 bar
Pump regulation	electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation, automatic oil flow optimizer
Hydraulic pump for swing drive	reversible, variable flow, swash plate pump, closed-loop circuit
Max. flow	149 l/min.
Max. pressure	350 bar
Hydraulic tank	340 l
Hydraulic system	550 l
Hydraulic oil filter	1 full flow filter in return line with integrated fine filter area (5 µm)
Hydraulic oil cooler	compact cooler, consisting of a water cooler, sandwiched with hydraulic oil cooler and fuel and after-cooler cores and hydrostatically driven fan adjustment of machine performance and the hydraulics via a mode selector to match applica- tion
MODE selection	
ECO	for especially economical and environmentally friendly operation
POWER	for maximum digging power and heavy duty jobs
LIFT	for lifting
FINE	for precision work and lifting through very sensi- tive movements
RPM adjustment	stepless adjustment of engine output via the rpm at each selected mode
Tool Control	ten preadjustable pump flows and pressures for add-on tools (option)



Hydraulic Controls

Power distribution	via monoblock control valve with integrated safety valves
Flow summation	to boom and stick
Closed-loop circuit	for uppercarriage swing drive
Servo circuit	
Attachment and swing	proportional via joystick levers
Travel	proportional via foot pedals or removable hand levers and speed pre-selection
Additional functions	via foot pedals or joystick toggle switch



Swing Drive

Drive by	Liebherr swash plate motor with integrated brake valves
Transmission	Liebherr compact planetary reduction gear
Swing ring	Liebherr, sealed single race ball bearing swing ring, internal teeth. Lubrication via a grease distributor and a grease nipple
Swing speed	0 – 8.2 RPM stepless
Swing torque	84 kNm
Holding brake	wet multi-disc (spring applied, pressure released)



Operator's Cab

Cab	built from deep drawn components, resiliently mounted, sound insulated, tinted windows, front window stores overhead, door with sliding window
Operator's seat	shock absorbing suspension, adjustable to operator's weight, 4-way adjustable seat
Joysticks	integrated into adjustable seat consoles
Monitoring	menu driven query of current operating condi- tions. Automatic monitoring, display, warning (acoustical and optical signal) and saving machine malfunction data, for example, engine overheating, low engine oil pressure or low hydraulic oil level
Heating system	standard air conditioning, combined cooler/ heater, additional dust filter in fresh air/recircu- lated
Noise emission	
ISO 6396	L_{pA} (inside cab) = 72 dB(A)
2000/14/EC	L_{WA} (surround noise) = 103 dB(A)



Undercarriage

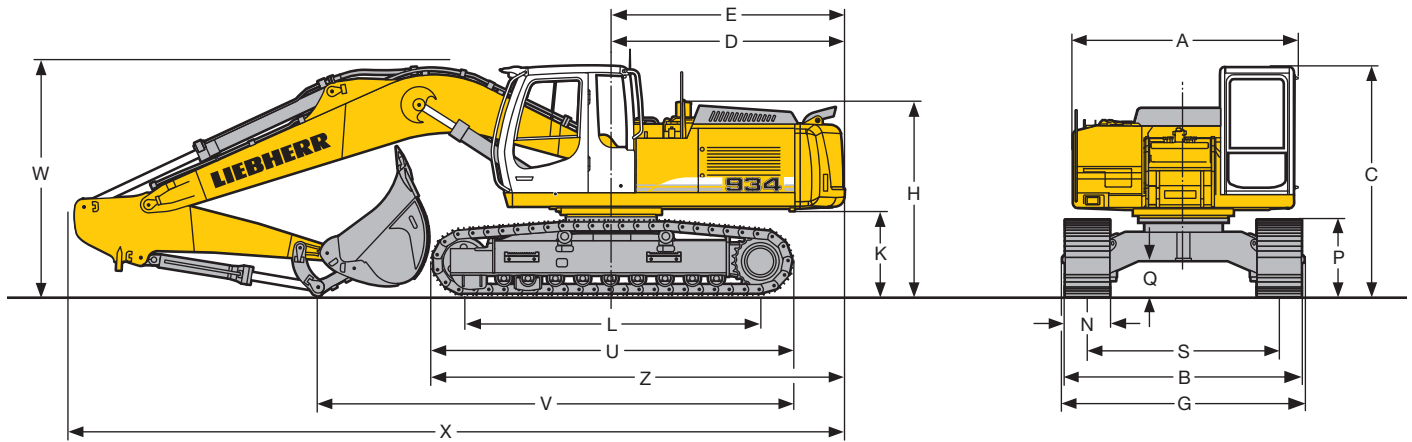
LC	heavy duty, wide gauge
Drive	Liebherr swash plate motors with integrated brake valves on both sides
Transmission	Liebherr planetary reduction gears
Travel speed	low range – 2.9 km/h high range – 5.2 km/h
Drawbar pull max.	243 kN
Track components	D 7, maintenance-free, for 600 mm and 750 mm pad width
Track rollers/Carrier rollers	9/2
Tracks	sealed and greased
Track pads	triple grouser
Digging locks	wet multi-discs (spring applied, pressure released)
Brake valves	integrated into travel motor



Attachment

Type	combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with special seal-system and shock absorbers
Pivots	sealed, low maintenance
Lubrication	easy accessible centralized lubrication points for boom and stick
Hydraulic connections	pipes and hoses equipped with SAE split-flange connections
Bucket	fitted as standard with 12 t lifting hook and Liebherr tooth system

Dimensions

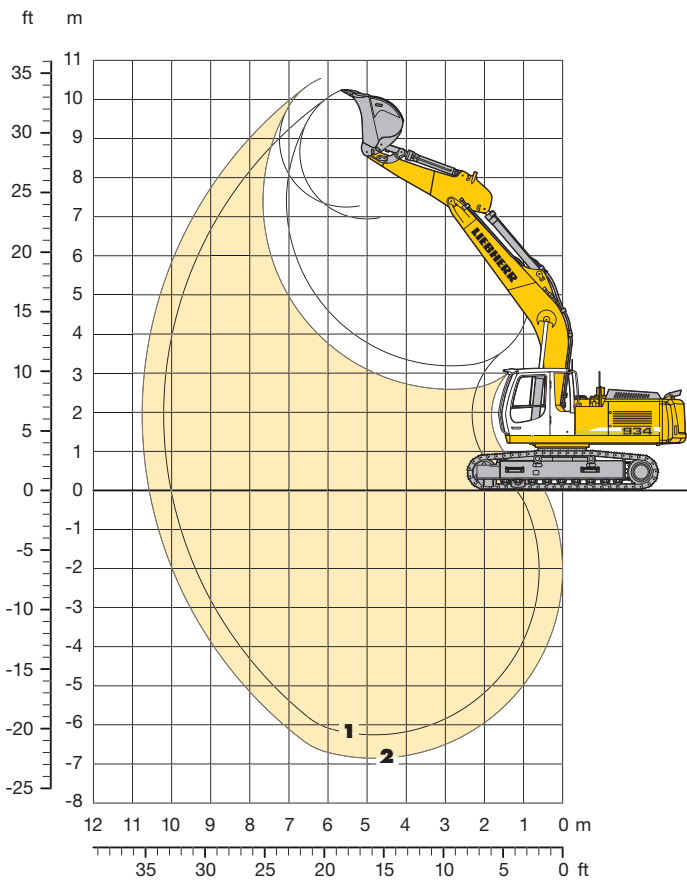


	mm
A	3,050
C	3,120
D	3,145
E	3,145
H	2,650
K	1,155
L	4,000
P	1,046
Q	496
U	4,920
S	2,590
N	600 750
B	3,190 3,340
G	3,176 3,476
Z	5,600

	Stick Length m	Mono Boom 6.05 m mm
V	2.50 3.10	6,450 5,850
W	2.50 3.10	3,150 3,250
X	2.50 3.10	10,500 10,500

Backhoe Attachment

with Mono Boom 6.05 m



Digging Envelope

		1	2
Stick length	m	2.50	3.10
Max. digging depth	m	6.25	6.85
Max. reach at ground level	m	10.00	10.55
Max. dump height	m	6.95	7.25
Max. teeth height	m	10.25	10.55

Digging Forces

		1	2
Digging force ISO	kN	144	124
	t	14.7	12.6
Breakout force ISO	kN	176	176
	t	17.9	17.9

Max. breakout force with ripper bucket 251 kN (25.6 t)

Operating Weight and Ground Pressure

Operating weight includes basic machine with mono boom 6.05 m, stick 3.10 m and bucket 1.65 m³.

Undercarriage		LC
Pad width	mm	600 750
Weight	kg	32,600 33,500
Ground pressure	kg/cm ²	0.63 0.52

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

Cutting width mm	Capacity ISO 7451 m ³	Weight kg	LC-Undercarriage		
			Stick length (m)	Stick length (m)	
			2.50	3.10	
HDL ¹⁾	1,450	1,45	1,340	○	□
	1,500	1.65	1,450	○	△
	1,600	1.80	1,540	□	■
HDL ²⁾	1,450	1.65	1,300	○	△
	1,550	1.80	1,390	□	■
HDL ³⁾	1,450	1.45	1,400	○	□
	1,600	1.65	1,450	□	△
	1,550	1.80	1,460	△	■
HDL ⁴⁾	1,450	1.65	1,300	□	△
	1,550	1.80	1,350	△	■

* Indicated loads are based on ISO 10567 max. stick length, lifted 360° on firm and even ground













- 1) HDL bucket for direct fitting with teeth Z 20
 - 2) HDL bucket for direct fitting with teeth Z 16
 - 3) HDL bucket for mounting to quick coupler with teeth Z 20
 - 4) HDL bucket for mounting to quick coupler with teeth Z 16
- Other buckets available on request

Max. material weight ○ = ≤ 2.2 t/m³, □ = ≤ 2.0 t/m³, △ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³













Lift Capacities

with Mono Boom 6.05 m

Stick 2.50 m

↓ m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		m		
														
7.5	LC					7.4*	7.4*					5.8*	5.8*	6.3
6.0	LC					8.3*	8.3*					5.5*	5.5*	7.4
4.5	LC			11.4*	11.4*	8.4	9.1*	6.0	8.0*			5.3	5.5*	8.1
3.0	LC			11.9	13.9*	7.9	10.2*	5.8	8.5*			4.8	5.7*	8.4
1.5	LC			11.2	15.5*	7.5	11.1*	5.6	8.7			4.7	6.1*	8.5
0	LC			11.0	15.5*	7.3	11.4*	5.4	8.6			4.8	6.9*	8.3
-1.5	LC	11.2*	11.2*	11.0	14.6*	7.3	11.0*	5.4	8.5*			5.2	8.1*	7.7
-3.0	LC	16.1*	16.1*	11.2	12.6*	7.4	9.6*					6.2	8.0*	6.9
-4.5	LC			9.0*	9.0*							7.5*	7.5*	5.3

Stick 3.10 m

↓ m	Under-carriage	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		m		
														
7.5	LC					7.0*	7.0*					4.5*	4.5*	7.1
6.0	LC					7.6*	7.6*	6.2	6.3*			4.3*	4.3*	8.0
4.5	LC			10.2*	10.2*	8.4*	8.4*	6.0	7.5*			4.2*	4.2*	8.7
3.0	LC			12.3	12.9*	8.1	9.6*	5.8	8.1*			4.4*	4.4*	9.0
1.5	LC			11.4	14.9*	7.6	10.7*	5.6	8.6*	4.3	5.0*	4.3	4.7*	9.0
0	LC	5.5*	5.5*	11.0	15.6*	7.3	11.3*	5.4	8.5			4.3	5.2*	8.8
-1.5	LC	10.5*	10.5*	10.9	15.1*	7.2	11.2*	5.3	8.4			4.6	6.1*	8.3
-3.0	LC	16.5*	16.5*	11.0	13.6*	7.2	10.3*	5.4	7.6*			5.4	7.6*	7.5
-4.5	LC	14.1*	14.1*	10.7*	10.7*	7.5	7.8*					7.1	7.3*	6.2

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

The load values are quoted in tons (t) at stick end (without bucket), and may be swung 360° on firm and even ground. Adjacent values are valid for the undercarriage when in the longitudinal position. Capacities are valid for 600 mm wide triple grouser pads. Indicated loads are based on ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity (indicated via *). With quick coupler the lift capacities will decrease by 350 kg. Without bucket cylinder, link and lever the lift capacities increase by an additional 430 kg. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

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

Standard Equipment



Undercarriage

- Idler protection
- Lifetime lubricated track rollers
- Single piece track guide at each track frame
- Tracks sealed and greased
- Two-stage travel motors



Uppercarriage

- Easy accessible lubrication points
- Engine hood with lift help and mechanical lock
- Handrails, non slip surfaces
- Lockable tool box
- Main switch for electric circuit
- Maintenance-free HD-batteries
- Maintenance-free swing brake lock
- Sound insulation
- Tool kit



Hydraulics

- Electronic pump regulation
- Filter with integrated fine filter area (5 µm)
- Flow compensation
- Hydraulic tank shut-off valve
- Pressure compensation
- Pressure storage for controlled lowering of attachments with engine turned off
- Pressure test ports
- Stepless work mode selector



Engine

- After-cooled
- Conform with stage IIIA/Tier 3 emission standard
- Dry-type air cleaner, main and safety element
- Sensor controlled engine idling
- Turbo charger
- Unit pump system with direct injection



Operator's Cab

- All tinted windows
- Cigarette lighter and ashtray
- Closed storage space
- Cloth hook
- Displays for engine operating condition
- Dome light
- Door with sliding window
- Emergency exit through rear window
- Inside rear mirror
- Load bearing sectional profile structure, covered with deep-drawn panels
- Mechanical hour meters, readable from outside the cab
- MP3 radio with USB and SD-Card support
- Rain hood over front window opening
- Removable floor mat
- Right window made of one piece (without post)
- Roof window, right window and windshield armored
- Seat and consoles independently adjustable (4-way adjustable seat)
- Seat belt
- Standard air conditioning with defroster
- Storage tray
- Sun roller blind
- Wiper/washer



Attachment

- 12 t lifting hook on bucket
- Cylinders with shock absorbers
- Easy accessible centralized lubrication points for boom and stick
- Pipe fracture safety valves for hoist cylinders
- ReGeneration plus
- SAE split flanges on all high pressure lines
- Sealed pivots/O-ring sealant between bucket and stick
- Work light on boom

Individual Options



Undercarriage

4-piece track guide at each track frame
Reinforced cover plate and reinforced base plate for center section
Track pads D 7 750 mm triple grouser*
Travel drive protection
Wide ascent for 750 mm track pads



Uppercarriage

Arctic kit**
Rear mirror on counterweight and right side
Rear view monitoring system with camera
Tank re-fueling pump
Winter kit**



Hydraulics

Additional high pressure hydraulic circuits for hammer and/or shear
Additional medium pressure hydraulic circuits
Return filter for hammer
Tool Control



Engine

Air pre-filter
External engine cold starting aid
Fuel pre-heating system



Operator's Cab

2 additional halogen flood lights (front)
2 additional halogen flood lights (rear)
Acoustic travel alarm
Air suspension operator seat with heating and head-rest
Extinguisher
FGPS Protection
FOPS Protection
GPS system
Warning beacon



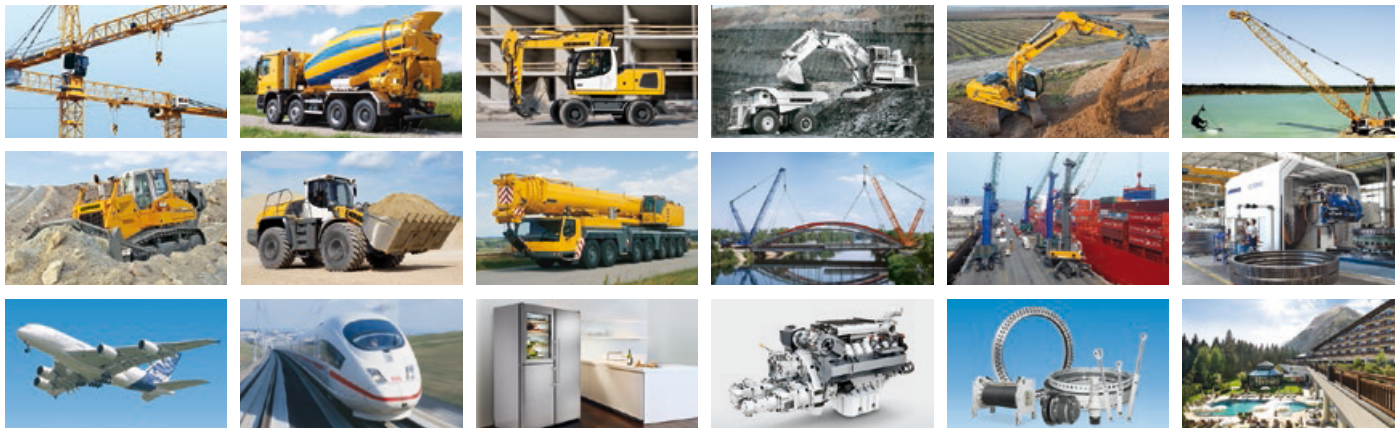
Attachment

Additional bottom protection for boom
Additional bottom protection for stick
Additional work light on boom
Fully-automatic central lubrication system (except link and tilt geometry)
Hydraulic lines for additional tools
Liebherr line of buckets
Mechanical and hydraulic quick coupler
Overload warning device
Piston rod protection for bucket cylinder

* = not suitable for hard rock or forestry application, ** = for more details please contact your local dealer

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.

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 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 130 companies with over 38,000 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



DIVISIÓN DE MAQUINARIA Y EQUIPOS PARA LA INDUSTRIA PESADA

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