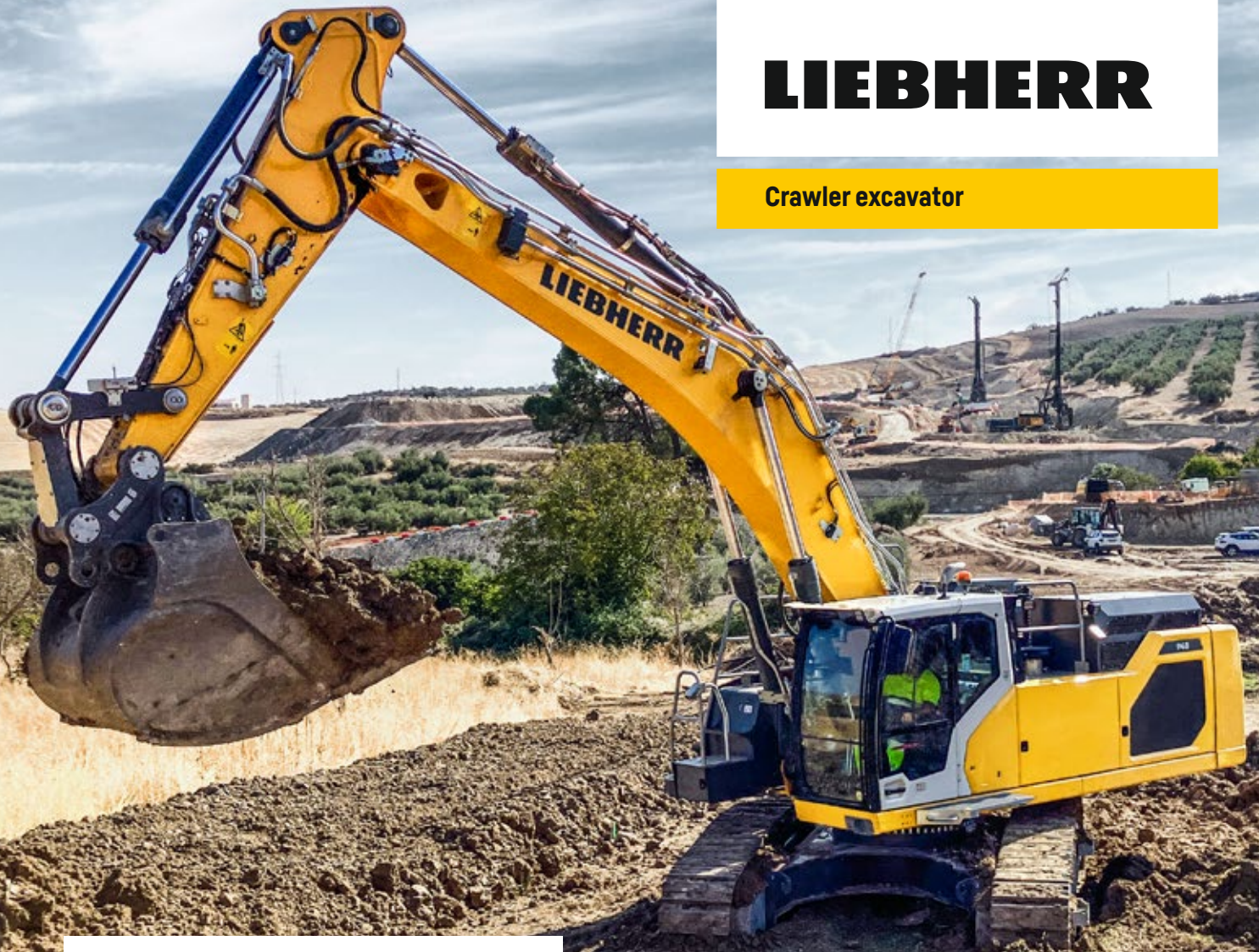


R 948 Litronic

LIEBHERR

Crawler excavator



Generation
8

Operating weight
51,180 / 112,830 lb

Engine
375 HP / 280 kW
Stage V
Tier 4 Final
Non-regulated only
for select markets

Bucket capacity
2.00–3.50 m³ /
2.62–4.58 yd³

Robustness, performance, innovation

R 948

① Maintenance

- Flat access platform for the engine compartment, without protrusions, fitted with non-slip studs
- Optional left and right catwalks
- Optional automatic central lubrication system with lubrication strategies fully integrated into the human-machine interface
- Optional shut-off valve on hydraulic tank outlet

② Equipment

- Wide choice of types and lengths of backhoe attachments
- Welded structure with cast steel components for improved stress-resistance and longer service life
- Safety check valves to prevent boom and stick cylinder pipes from bursting, with integrated regeneration system for lower fuel consumption
- New Liebherr Positive Control hydraulic control system for more rapid and efficient movements

③ Safety

- Completely unobstructed, best-on-the-market visibility and rear- and side-view monitoring cameras as standard
- Haptic display to ensure safer operation and prevent accidental activation
- Retractable console for safe, easy cab access
- Fully retractable or optional partially fixed windscreen and impact-resistant roof glass panel as standard
- Roll over protective structure ROPS
- Optional safe side cab access platform
- Optional retractable electric ladder

④ Undercarriage

- Welded undercarriage with more rigid X profile for increased robustness
- Double or triple grouser track pads depending on the application
- Track rollers with lifetime lubrication
- Forged one-tooth sprocket with material ejection

⑤ Comfort

- The latest and most innovative operator's cab on the market, quiet and very comfortable
- Heated seat with pneumatic multi-directional shock absorption (air conditioning optional)
- High-resolution 10" color touchscreen
- Groundbreaking, intuitive INTUSI human-machine interface

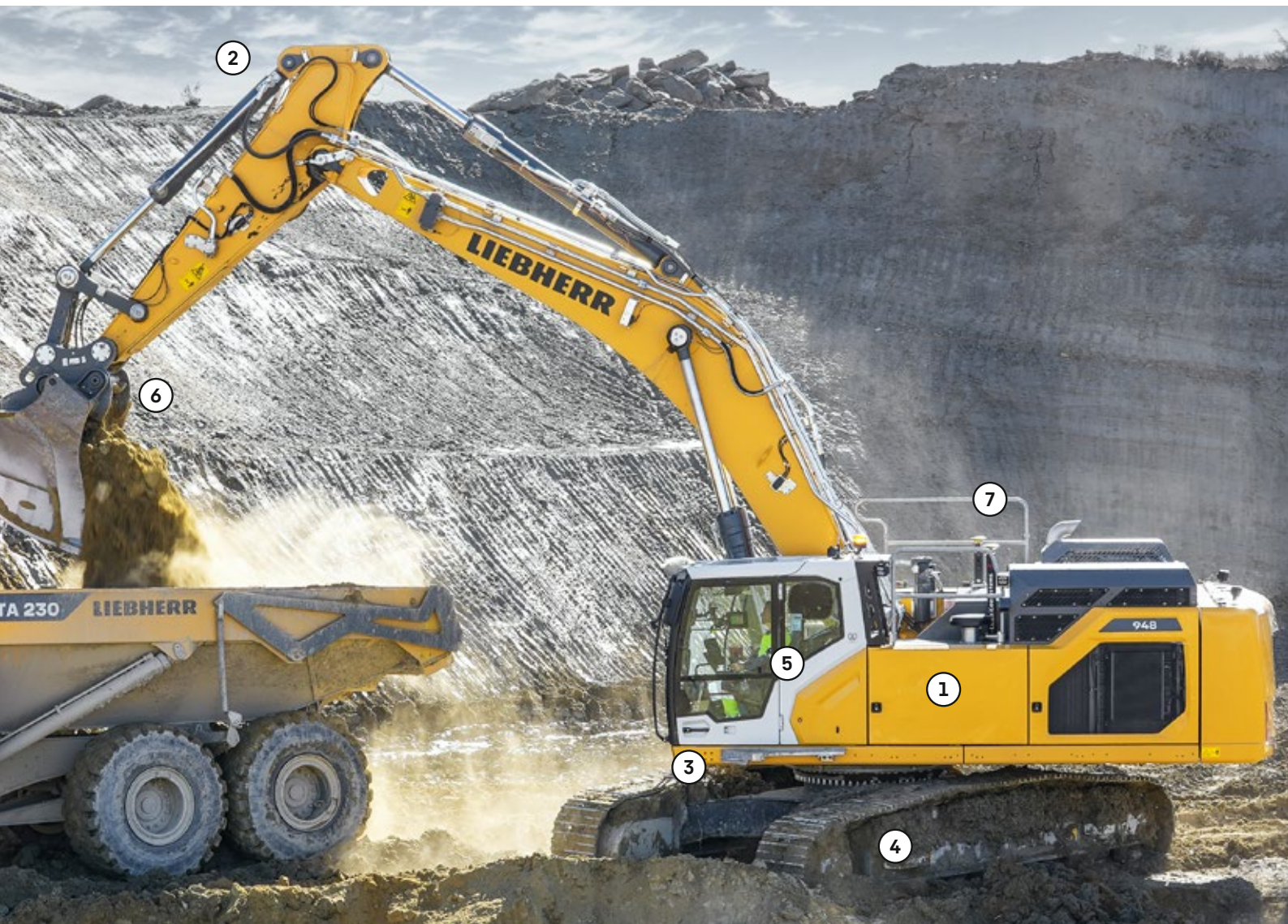


⑥ Buckets

- New design for bucket and teeth
- Different levels of protection to suit different areas of application:
 - HD for loose, minimally abrasive materials
 - HDR for hard-to-break, moderately abrasive materials
 - HDV for highly abrasive materials
- Different blade versions:
 - Straight (for earthmoving and grading)
 - Semi-delta (for hard-to-break, hard-to-extract materials)
 - Delta (for compacted or slightly cracked materials)

⑦ New technologies

- **Liebherr Power Efficiency (LPE)**
Up to 10% reduction in fuel consumption, as standard
- **Bucket Fill Assist (BFA)**
Automatic bucket-filling cycle for increased productivity, as standard with 500 machine hours included
- **Modetronic**
Customisable driving modes for optimized work cycles tailored to each type of application, as standard
- **Machine control**
2D passive machine control included as standard, with numerous other control options available (active, 3D, etc.)
- **Dynamic weighing**
Integrated dynamic weighing system as standard with 500 machine hours included
- **Liebherr Connect**
Latest-generation telemetry system, as standard
- **MyLiebherr**
Series customer portal with numerous downloadable applications (subscription required)



Maintenance & robustness

A machine designed to last

Intended for demanding earthmoving applications, the R 948 has been developed with particular attention to component robustness and ease of maintenance. With every detail, the aim is to maximize the availability of the machine and reduce downtime.



Easier maintenance

Flat and free from protrusions, the engine access platform is designed to enable quick, safe maintenance. Non-slip surfaces and fully unobstructed access platforms offer ideal conditions for maintenance operations, whatever the conditions on the job site.

The automatic central lubrication system, available as standard, is fully integrated into the human-machine interface. Lubrication strategies are adjusted automatically, ensuring optimal lubrication of key components while also limiting omissions and errors.

Robust structure

The welded structure combines high-strength steels and cast steel components for effective resistance to operational stresses. This tried and tested design guarantees high durability, even under continuous intensive use.

The sticks are dust-tight as standard and feature bearings with protective caps for the axles and enhanced lubrication for greater robustness and performance.



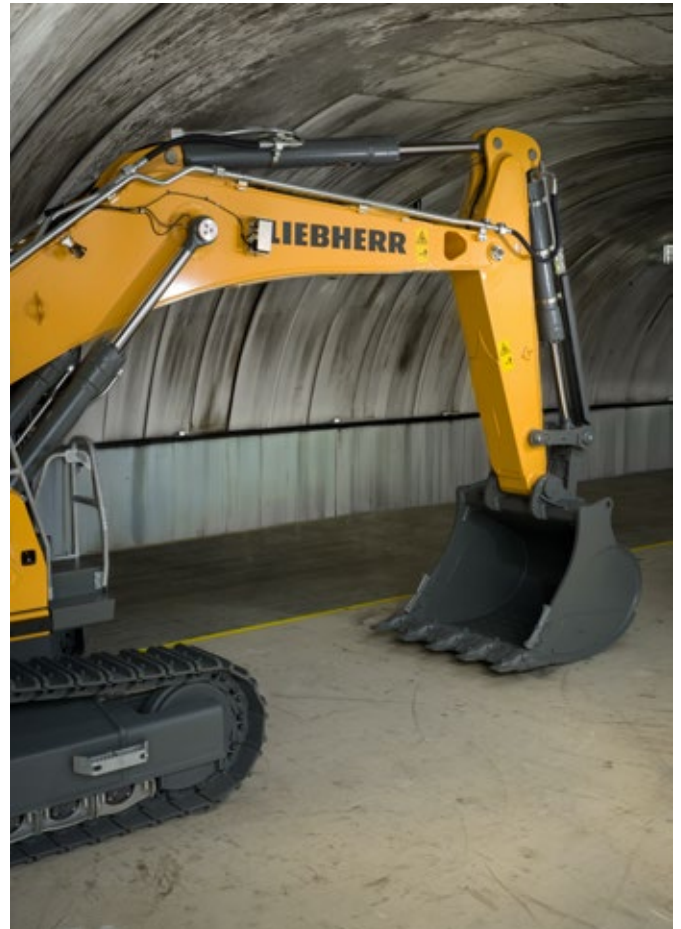
Working attachments & undercarriage

Versatility for all applications

Thanks to a wide range of working attachments and an undercarriage designed for stability and traction, the R 948 can adapt precisely to every job, from standard to complex earthmoving applications.

Custom attachments

The R 948 offers a vast choice of booms, sticks, and backhoe bucket configurations, allowing the machine to be optimized for each specific application. The new Liebherr Positive Control hydraulic control system ensures rapid, smooth and perfectly coordinated movements, along with maximum productivity.



High-strength undercarriage

The welded undercarriage features an extra-rigid X-shaped profile, guaranteeing stability and optimum load distribution.

The permanently lubricated track rollers and forged single-tooth sprocket with automatic material ejection ensure improved reliability and lower maintenance costs over the long term.

Double- or triple-grouser track pads are available as required, offering optimum traction on all types of ground.



New generation 8 TL 07 bucket

Buckets for all types of digging material

The new generation of Liebherr buckets and teeth is available with several levels of protection (HD, HDR and HDV), to cater precisely to the challenges of the digging mate-

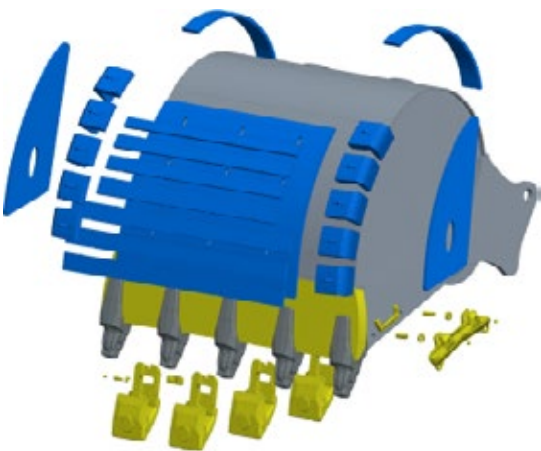
rials worked on. The different blade versions allow penetration and filling to be optimized for any type of ground whatsoever.

New model names

of wear kits HD, HDR and HDV

Many designs

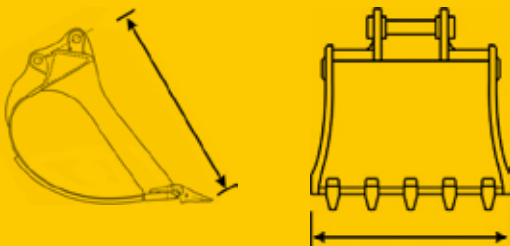
and configurable options



New range

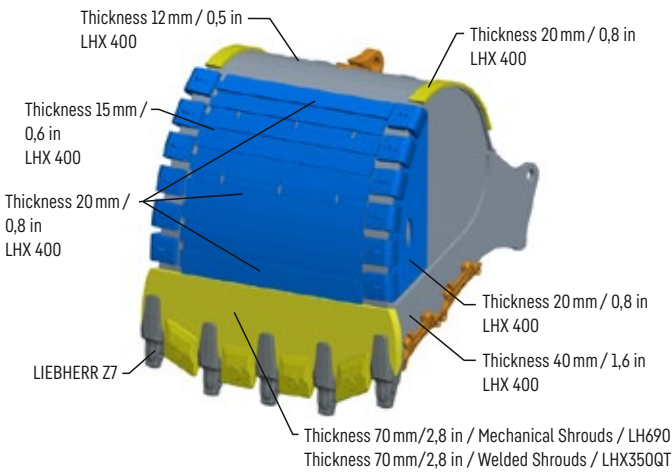
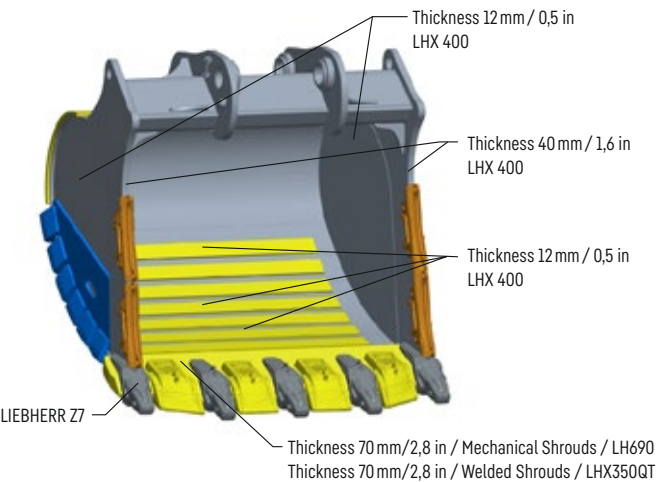
clear and well structured

**4 blade widths + 4 shapes
= 9 buckets**



	1,500 mm / 4' 11"	1,700 mm / 5' 7"	1,950 mm / 6' 5"	2,150 mm / 7' 1"
R	2.00 m³/2.62 yd³	2.30 m³/3.00 yd³	2.70 m³/3.53 yd³	-
S	-	2.50 m³/3.27 yd³	3.00 m³/3.92 yd³	3.50 m³/4.58 yd³
V	-	-	3.25 m³/4.25 yd³	3.70 m³/4.84 yd³
W	-	-	-	4.00 m³/5.23 yd³

Materials and thicknesses



New generation 3 tooth system

The new Liebherr Z G3 tooth system was designed to enhance the end-user experience and was optimized to provide even more performance than the previous system.

Improved tooth design

The tooth in the new Z G3 system has a self-sharpening design which means, as it wears down, the edge naturally becomes sharper to maintain optimal penetration, which in turn makes digging more efficient. Plus, the tooth has extra wear material in all the most important places to prevent premature wear while working in highly abrasive environments and ensure long-lasting performance. For even more durability, the retainer that secures the tooth to the adapters within the system is made of metal and so can handle long stretches in storage as well as extreme temperature while it's working. As a bonus, the retainer is also pre-installed onto the tooth to help speed up and simplify the installation process!



Advanced wear cap and adapter design

The updated design of both the adapter and the wear cap in the Z G3 system are full of new features. There are large contact surfaces on the adapter's nose that minimizes plastic deformation, wear indicators so technicians confidently know when the wear cap needs to be replaced, and weld protection to prevent wear along the bottom and sides of the adapter. On top of all that, the new adapter is designed to evenly distribute both stress and load for better stability and performance.

Secure locking system

The Z G3 system's locking system can be installed and removed in two easy, hammerless steps for fast and simple maintenance. Supporting this easy installation is a locking hole in the tooth that has a poka-yoke mechanism, which guides the pin into the right position each and every time. And technicians can be certain installation has occurred correctly as the locking system makes an audible 'click' when the pin has been securely locked in place.



New technologies

Latest generation technologies

The R 948 includes as standard the **Liebherr Power Efficiency (LPE)** concept, allowing up to 10% lower fuel consumption.

The **Bucket Fill Assist (BFA)** system automates bucket filling for consistent productivity, while **Modetronic** allows machine behaviour to be adapted to each operator and each application.

2D passive machine control, integrated **dynamic weighing** and **Liebherr Connect** connectivity complete this set of technologies, delivering a precise, connected and performance-oriented machine.

On-board intelligence and maximum productivity

The Liebherr technologies included as standard in the R 948 optimize each work cycle while also reducing consumption and component wear.



The new emCAB operator's cab

The new operating system for a smarter job site

In today's construction industry, intuitive machine control is essential for maximizing productivity and ease of use. INTUSI (Intuitive User Interface) integrates intelligent control logic with advanced machine learning capabilities, offering a highly customizable interface. This innovation significantly enhances operational efficiency and user comfort on the job site.



Ultra-ergonomic control with Liebherr joysticks

Central to the INTUSI experience are two joysticks designed and developed by Liebherr to the highest quality standards, ergonomically positioned on either side of the operator's seat. Designed for comfort at work, they offer a completely natural and very comfortable grip and reduce operator fatigue – even during extended shifts.

Intuitive operation thanks to uncluttered control units

A compact display to the right of the operator enables quick access to important functions. The optimized arrangement of the control elements on the right-hand console ensures intuitive operation and minimizes fatigue. An operating system that adapts to your needs, not the other way around.



Technical data



Diesel engine

Rating	
per SAE J1349	375 HP (280 kW) at 1,800 rpm
per ISO 9249	381 HP (280 kW) at 1,800 rpm
Torque	2,280 Nm at 1,000 rpm / 1,682 lbf ft at 1,000 rpm
Model	Liebherr D956 A7-05
Type	6 cylinder in-line
Bore / Stroke	130 / 150 mm / 5.1 / 5.9 in
Displacement	11.9 l / 726 in³
Engine operation	4-stroke diesel
	Common-Rail, monoturbo
Exhaust gas treatment	Certifications: EU Stage V / US Tier 4 Final / Non regulated DOC + SCR Filter (not applicable for Non regulated) Passive regeneration by thermo management
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	900 l / 238 gal
Urea tank	90 l / 24 gal
Engine idling	Sensor controlled
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah / 12 V
Alternator	Three-phase current 28 V / 140 A



Cooling system

Diesel engine	Water-cooled and oil cooler, after-cooled and fuel cooled
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Hydraulic controls

Power distribution	Via control valves, simultaneous and independent actuation of undercarriage, swing drive and equipment
Electric servo circuit	Electro-hydraulic control
Equipment and swing Travel	Proportional via joystick levers – Proportional control via foot pedals or removable levers – Automatic or manual speed adjustment
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic system

Hydraulic system	Positive Control hydraulic system. Demand-based, double independent pump flows Features high system dynamics and sensitivity provided by integrated system controlling Independent circuit for rotation with braking energy reutilisation
Hydraulic pumps	
For equipment and travel drive	Two Liebherr variable displacement, swashplate pumps
Max. flow	2 x 380 l/min. / 2 x 100 gpm
Max. pressure	380 bar / 5,511 psi
For swing drive	Swashplate pump, closed-loop circuit
Max. flow	250 l/min. / 66 gpm
Max. pressure	400 bar / 5,802 psi
Pump management	Electronic management synchronous to the control block
Hydraulic tank	365 l / 96 gal
Hydraulic system	max. 710 l / 188 gal
Filtration	2 full flow filters in return line with integrated fine filter area (10 µm / 1,250 mesh)
Option	2 filters 200 µm / 66 mesh upstream of the main distributor
MODE selection	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical operation or for maximum digging performance and heavy-duty jobs
E (Eco)	Mode for especially economical operation
P (Power)	Mode for high performance with low fuel consumption
P+ (Power-Plus)	Mode for highest performance and for very heavy duty applications, suitable for intensive continuous operation
Engine speed and performance setting	Stepless adjustment of engine output and hydraulic power via engine speed. LPE mode optimizes the interaction between the diesel engine and the working hydraulics for maximum fuel efficiency
Option	Tool Control: 20 pre-adjustable pump flows and pressures for attachments supplied by the auxiliary high-pressure circuit



Swing drive

Drive	Liebherr axial piston motor
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0-6.7 rpm stepless
Swing torque	185 kNm / 136,450 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)



Cab

Cab	ROPS / TOPS safety cab structure (roll-over / tip-over protection system) with individual windscreens or featuring a slide-in subpart under the ceiling, headlights integrated in the ceiling, a door with a sliding window, large stowing and depositing possibilities, shock-absorbing suspension, sound damping insulating, laminated safety glass, separate window shades for the sunroof window and windscreen
Operator's seat Comfort	Air cushioned operator's seat with 3D-adjustable armrests, headrest, lap belt, seat heater (2-stage), adjustable seat cushion inclination and length, lockable horizontal suspension, automatic weight adjustment, pneumatic low frequency suspension, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatization with active coal
Operator's seat Premium (Option)	In addition to operator's seat Comfort: active electronic weight adjustment (automatic readjustment) and active seat climatization with active coal and ventilator
Arm consoles	Joysticks with control consoles attached to the seat, folding left control console
Operation and displays	Large high-resolution operating unit, intuitive, color display with touchscreen, haptic feedback, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption, machine and attachment parameters, separate display for rear view and side view monitoring
Air-conditioning	Automatic air-conditioning, recirculated air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu; recirculated air and fresh air filters can be easily replaced and are accessible from the outside; heating-cooling unit, designed for extreme outside temperatures, sensors for solar radiation, inside and outside temperatures (country-dependent)



Undercarriage

LC	Gauge 2,740 mm / 9'
Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor on both sides
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	3.1 km/h / 1.9 mph low range 5.2 km/h / 3.2 mph high range
Drawbar pull on crawler	383 kN / 86,100 lbf
Track components	D7G, maintenance-free
Track rollers / Carrier rollersz	9 / 2
Tracks	Sealed and greased
Track pads	Double or triple grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Integrated into travel motor
Lashing eyes	Integrated



Equipment

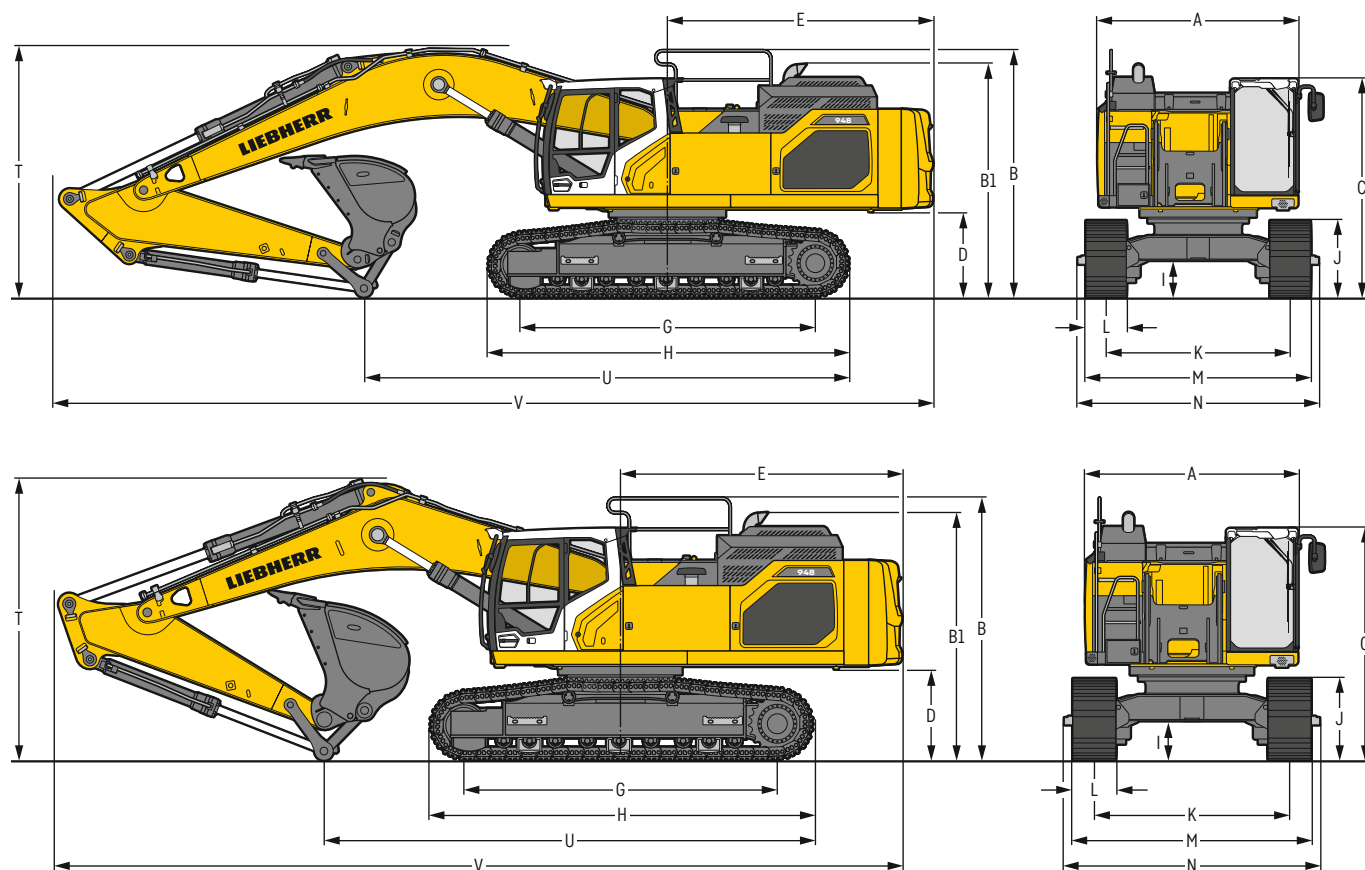
Type	Optimized combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with special sealing and guide system and electronically controlled shock absorption
Bearings	Sealed, low maintenance
Backhoe buckets	New TL 07 design with the new Z G3 generation of teeth



Complete machine

Lubrication	Liebherr central lubrication system
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections (standardized)
Noise emission	
ISO 6396	72 dB(A) = L _{pA} (inside cab)
2000/14/EC	107 dB(A) = L _{WA} (surround noise)

Dimensions



	LC	mm / ft in
A¹⁾ Uppercarriage width		2,990 / 9'10"
B Uppercarriage height		3,690 / 12' 1"
B1 Uppercarriage height (handrails folded)		3,480 / 11' 5"
C Cab height		3,260 / 10' 8"
D Counterweight ground clearance		1,275 / 4' 2"
E Rear-end length		3,950 / 13'
G Wheelbase		4,400 / 14' 5"
H Undercarriage length		5,370 / 17' 7"
I Undercarriage ground clearance		550 / 1'10"
J Track height		1,145 / 3' 9"
K Track gauge		2,740 / 9'
L Track pad width	600 / 24" 750 / 30" 900 / 35"	
M Width over tracks	3,340 / 10'11" 3,490 / 11' 5" 3,640 / 11'11"	
N Width over steps	3,585 ¹⁾ / 11' 9"¹⁾ 3,585 ¹⁾ / 11' 9"¹⁾ 3,585 ¹⁾ / 11' 9"¹⁾	

¹⁾ width with removable steps

	Stick length	Mono boom 6.95 m / 22'10"	Mono boom 7.70 m / 25'3"	Mono boom ME 6.50 m / 21'4"
	m / ft in	direct mounting	direct mounting	direct mounting
T Boom height	2.90 / 9' 6" 3.35 / 11' 3.90 / 12'10" 2.50 / 8' 2" ME 2.90 / 9' 6" ME	3,750 / 12'4" 3,700 / 12'2" 3,500 / 11'6" - -	3,800 / 12' 6" 3,750 / 12' 4" 3,600 / 11'10" - -	- - - 3,750 / 12' 4" 4,000 / 13' 1"
U Length on ground	2.90 / 9' 6" 3.35 / 11' 3.90 / 12'10" 2.50 / 8' 2" ME 2.90 / 9' 6" ME	7,250 / 23'9" 6,550 / 21'6" 9,200 / 30'2" - -	8,000 / 26' 3" 7,250 / 23' 9" 6,450 / 21' 2" - -	- - - 7,300 / 23'11" 6,850 / 22' 6"
V Overall length	2.90 / 9' 6" 3.35 / 11' 3.90 / 12'10" 2.50 / 8' 2" ME 2.90 / 9' 6" ME	12,400 / 40'8" 12,400 / 40'8" 12,400 / 40'8" - -	13,100 / 43' 13,100 / 43' 13,100 / 43' - -	- - - 11,900 / 39' 1" 11,900 / 39' 1"
Bucket		3.00 m ³ / 3.92 yd³	2.30 m ³ / 3.01 yd³	3.00 m ³ / 3.92 yd³

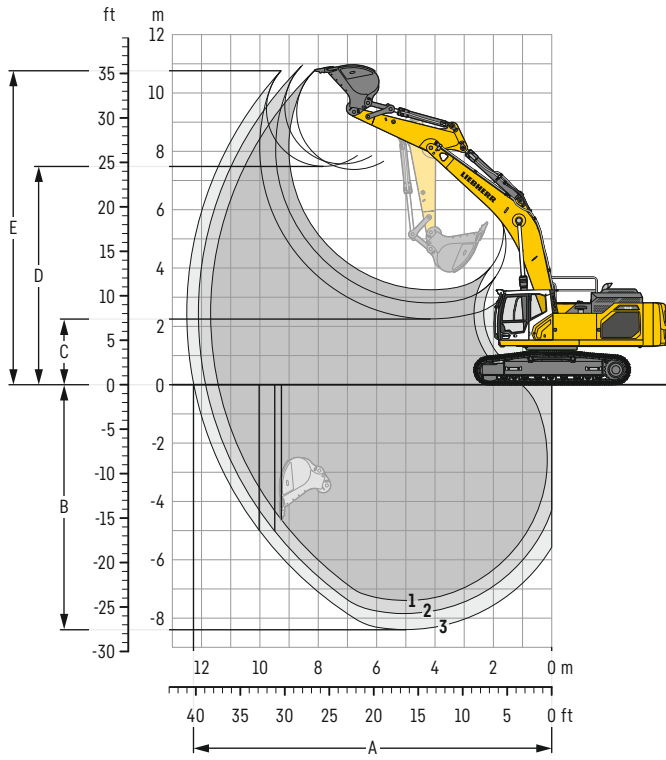
Transport dimensions

removable elements disassembled

		Mono boom 6.95 m / 22'10"	Mono boom 7.70 m / 25'3"	Mono boom ME 6.50 m / 21'4"
		mm / ft in	mm / ft in	mm / ft in
Pad width		600 / 24" 750 / 30" 900 / 35"	600 / 24" 750 / 30" 900 / 35"	600 / 24" 750 / 30" 900 / 35"
Transport width		3,340 / 10'11" 3,490 / 11' 5" 3,640 / 11'11"	3,340 / 10'11" 3,490 / 11' 5" 3,640 / 11'11"	3,340 / 10'11" 3,490 / 11' 5" 3,640 / 11'11"
	Stick			
	m / ft in	mm / ft in	mm / ft in	mm / ft in
Transport length		12,400 / 40'8"	13,100 / 43'	11,900 / 39' 1"
Transport height	2.90 / 9' 6" 3.35 / 11' 3.90 / 12'10" 2.50 / 8' 2" ME 2.90 / 9' 6" ME	3,750 / 12'4" 3,700 / 12'2" 3,500 / 11'6" - -	3,800 / 12' 6" 3,750 / 12' 4" 3,600 / 11'10" - -	- - - 3,750 / 12' 4" 4,000 / 13' 1"
Bucket		3.00 m ³ / 3.92 yd³	2.30 m ³ / 3.01 yd³	3.00 m ³ / 3.92 yd³

Backhoe bucket

with mono boom 6.95 m / 22'10"



Digging envelope

without quick coupler		1	2	3
Stick length	m / ft in	2.90 / 9'6"	3.35 / 11'	3.90 / 12'10"
A Max. reach at ground level	m / ft in	11.43 / 37'6"	11.86 / 38'11"	12.26 / 40' 3"
B Max. digging depth	m / ft in	7.39 / 24'3"	7.84 / 25' 9"	8.39 / 27' 6"
C Min. dumping height	m / ft in	3.25 / 10'8"	2.81 / 9' 3"	2.26 / 7' 5"
D Max. dumping height	m / ft in	7.38 / 24'3"	7.57 / 24'10"	7.48 / 24' 6"
E Max. cutting height	m / ft in	10.77 / 35'4"	10.96 / 35'11"	10.76 / 35' 4"

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN / lbf	243 / 54,630	221 / 49,680	199 / 44,740
Bucket digging force (ISO 6015)	kN / lbf	298 / 66,990	298 / 66,990	298 / 66,990
Stick digging force (SAE J1179)	kN / lbf	238 / 53,510	217 / 48,780	197 / 44,290
Bucket digging force (SAE J1179)	kN / lbf	260 / 58,450	260 / 58,450	260 / 58,450

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 9.4 t / 20,720 lb, mono boom 6.95 m / 22'10", stick 2.90 m / 9'6" and HD backhoe bucket 3.00 m³ / 3.92 yd³ (2,650 kg / 5,840 lb).

Undercarriage		LC
Pad width	mm / in	600 / 24" 750 / 30" 900 / 35"
Weight	kg / lb	48,600 / 107,150 49,860 / 109,920 50,730 / 111,840
Ground pressure	kg/cm ² / psi	0.85 / 12.1 0.70 / 10.0 0.59 / 8.4

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

	Cutting width	Capacity ISO 7451	Weight	LC undercarriage (with track pads 600 mm / 24")		
				Stick length (m / ft in)		
				2.90 9'6"	3.35 11'	3.90 12'10"
HD ¹⁾	1,500 4'11"	2.00 2.62	2,050 4,520	▲	▲	▲
	1,700 5'7"	2.30 3.01	2,250 4,960	▲	▲	▲
	1,700 5'7"	2.50 3.27	2,400 5,290	▲	▲	■
	1,950 6'5"	2.70 3.53	2,450 5,400	▲	■	▲
	1,950 6'5"	3.00 3.92	2,650 5,840	■	▲	■
	1,950 6'5"	3.25 4.25	2,750 6,060	▲	■	■
	1,500 4'11"	2.00 2.62	2,400 5,290	▲	▲	▲
	1,700 5'7"	2.30 3.01	2,600 5,730	▲	▲	▲
	1,700 5'7"	2.50 3.27	2,750 6,060	▲	▲	■
	1,950 6'5"	2.70 3.53	2,800 6,170	▲	■	▲
	1,950 6'5"	3.00 3.92	2,950 6,500	■	■	■
	1,950 6'5"	3.25 4.25	3,020 6,660	▲	■	■
HDR ²⁾						

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

¹⁾ HD backhoe bucket with Liebherr teeth Z 70

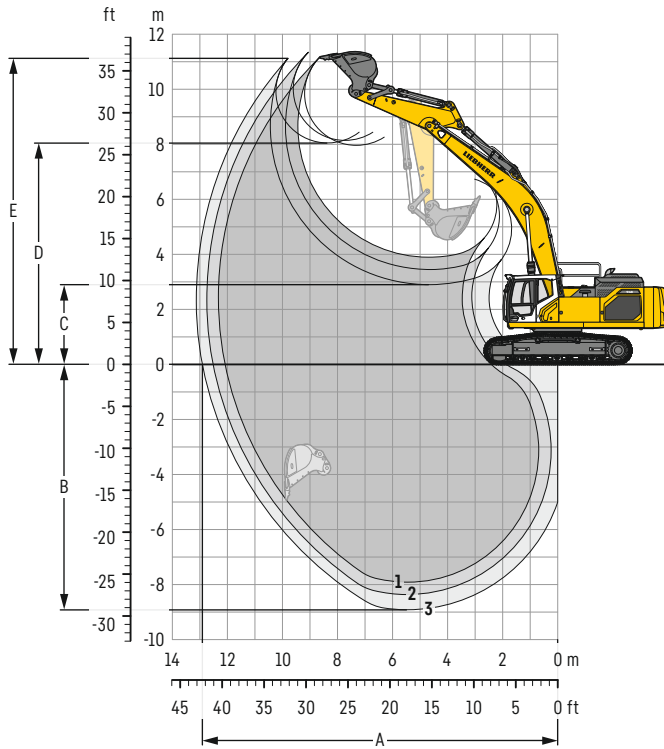
²⁾ HDR backhoe bucket with Liebherr teeth Z 70

Other backhoe buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³ / 3,400 lb/yd³, ■ = ≤ 1.8 t/m³ / 3,000 lb/yd³, ▲ = ≤ 1.65 t/m³ / 2,800 lb/yd³, ■ = ≤ 1.5 t/m³ / 2,500 lb/yd³

Backhoe bucket

with mono boom 7.70 m / 25'3"



Digging envelope

without quick coupler		1	2	3
Stick length	m / ft in	2.90 / 9' 6"	3.35 / 11'	3.90 / 12'10"
A Max. reach at ground level	m / ft in	12.08 / 39' 8"	12.51 / 41'1"	12.90 / 42' 4"
B Max. digging depth	m / ft in	7.91 / 25'11"	8.36 / 27'5"	8.91 / 29' 3"
C Min. dumping height	m / ft in	3.90 / 12'10"	3.45 / 11'4"	2.90 / 9' 6"
D Max. dumping height	m / ft in	8.14 / 26' 8"	7.96 / 26'1"	8.04 / 26' 5"
E Max. cutting height	m / ft in	11.15 / 36' 7"	11.34 / 37'2"	11.11 / 36' 5"

Forces

without quick coupler		1	2	3
Stick digging force (ISO 6015)	kN / lbf	243 / 54,630	221 / 49,680	199 / 44,740
Bucket digging force (ISO 6015)	kN / lbf	298 / 66,990	298 / 66,990	298 / 66,990
Stick digging force (SAE J1179)	kN / lbf	238 / 53,510	217 / 48,780	197 / 44,290
Bucket digging force (SAE J1179)	kN / lbf	260 / 58,450	260 / 58,450	260 / 58,450

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 9.4 t / 20,720 lb, mono boom 7.70 m / 25'3", stick 3.90 m / 12'10" and HD backhoe bucket 2.30 m³ / 3.01 yd³ (2,250 kg / 4,960 lb).

Undercarriage		LC		
Pad width	mm / in	600 / 24"	750 / 30"	900 / 35"
Weight	kg / lb	49,050 / 108,140	50,310 / 110,920	51,180 / 112,830
Ground pressure	kg/cm ² / psi	0.86 / 12.2	0.71 / 10.1	0.60 / 8.5

Backhoe bucket

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

	Cutting width	Capacity ISO 7451	Weight	LC undercarriage (with track pads 600 mm / 24")		
				Stick length (m / ft in)		
				2.90 9'6"	3.35 11'	3.90 12'10"
HD ¹⁾	1,500 4'11"	2.00 2.62	2,050 4,520	▲	▲	▲
	1,700 5'7"	2.30 3.01	2,250 4,960	▲	■	▲
	1,700 5'7"	2.50 3.27	2,400 5,290	■	▲	■
	1,950 6'5"	2.70 3.53	2,450 5,400	▲	■	■
	1,950 6'5"	3.00 3.92	2,650 5,840	■	■	—
	1,950 6'5"	3.25 4.25	2,750 6,060	■	—	—
	1,500 4'11"	2.00 2.62	2,400 5,290	▲	▲	■
	1,700 5'7"	2.30 3.01	2,600 5,730	▲	▲	■
	1,700 5'7"	2.50 3.27	2,750 6,060	▲	■	■
	1,950 6'5"	2.70 3.53	2,800 6,170	■	■	△
	1,950 6'5"	3.00 3.92	2,950 6,500	■	△	—
	1,950 6'5"	3.25 4.25	3,020 6,660	△	—	—
HDR ²⁾	1,500 4'11"	2.00 2.62	2,400 5,290	▲	▲	■
	1,700 5'7"	2.30 3.01	2,600 5,730	▲	▲	■
	1,700 5'7"	2.50 3.27	2,750 6,060	▲	■	■
	1,950 6'5"	2.70 3.53	2,800 6,170	■	■	△
	1,950 6'5"	3.00 3.92	2,950 6,500	■	△	—
	1,950 6'5"	3.25 4.25	3,020 6,660	△	—	—

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

¹⁾ HD backhoe bucket with Liebherr teeth Z 70

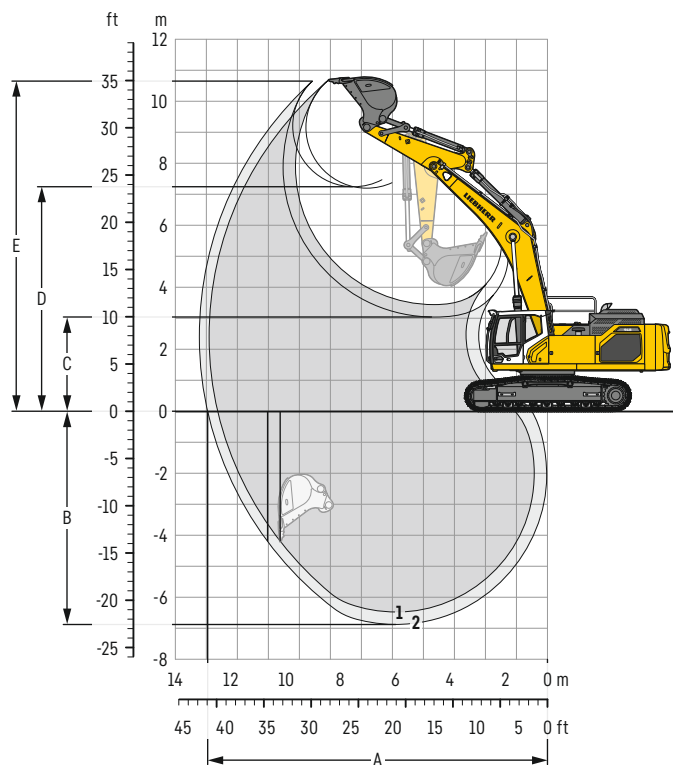
²⁾ HDR backhoe bucket with Liebherr teeth Z 70

Other backhoe buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³ / 3,400 lb/yd³, ■ = ≤ 1.8 t/m³ / 3,000 lb/yd³, ▲ = ≤ 1.65 t/m³ / 2,800 lb/yd³, ■ = ≤ 1.5 t/m³ / 2,500 lb/yd³, △ = ≤ 1.2 t/m³ / 2,000 lb/yd³, — = not authorized

Backhoe bucket

with mono boom ME 6.50 m / 21'4"



Digging envelope

without quick coupler		1	2
Stick length	m / ft in	2.50 / 8' 2"	2.90 / 9' 6"
		ME	ME
A Max. reach at ground level	m / ft in	10.63 / 34' 11"	10.96 / 35' 11"
B Max. digging depth	m / ft in	6.48 / 21' 3"	6.88 / 22' 7"
C Min. dumping height	m / ft in	3.44 / 11' 3"	3.04 / 10'
D Max. dumping height	m / ft in	7.20 / 23' 7"	7.24 / 23' 9"
E Max. cutting height	m / ft in	10.68 / 35'	10.64 / 34' 11"

Forces

without quick coupler		1	2
Stick digging force (ISO 6015)	kN / lbf	261 / 58,680	239 / 53,730
Bucket digging force (ISO 6015)	kN / lbf	323 / 72,610	323 / 72,610
Stick digging force (SAE J1179)	kN / lbf	255 / 57,330	234 / 52,610
Bucket digging force (SAE J1179)	kN / lbf	284 / 63,850	284 / 63,850

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 9.4 t / 20,720 lb, mono boom ME 6.50 m / 21'4", stick ME 2.50 m / 8'2" and HD backhoe bucket 3.00 m³ / 3.92 yd³ (2,650 kg / 5,840 lb).

Undercarriage		LC	
Pad width	mm / in	600 / 24"	750 / 30"
Weight	kg / lb	48,660 / 107,280	49,920 / 110,060
Ground pressure	kg / cm ² / psi	0.86 / 12.2	0.70 / 10.0

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

	Cutting width	Capacity ISO 7451	Weight	LC undercarriage (with track pads 600 mm / 24")	
				Stick length (m / ft in)	
	mm ft in	m ³ yd ³	kg lb	2.50 8'2"	2.90 9'6"
HD ¹⁾	1,500 4'11"	2.00 2.62	2,050 4,520	▲	▲
	1,700 5'7"	2.30 3.01	2,250 4,960	▲	▲
	1,700 5'7"	2.50 3.27	2,400 5,290	▲	▲
	1,950 6'5"	2.70 3.53	2,450 5,400	▲	▲
	1,950 6'5"	3.00 3.92	2,650 5,840	▲	▲
	1,950 6'5"	3.25 4.25	2,750 6,060	▲	■
	1,950 6'5"	3.50 4.58	2,850 6,280	■	▲
	2,150 7'1"	3.50 4.58	2,850 6,280	■	▲
	1,500 4'11"	2.00 2.62	2,400 5,290	▲	▲
	1,700 5'7"	2.30 3.01	2,600 5,730	▲	▲
	1,700 5'7"	2.50 3.27	2,750 6,060	▲	▲
	1,950 6'5"	2.70 3.53	2,800 6,170	▲	▲
HDR ²⁾	1,950 6'5"	3.00 3.92	3,000 6,610	▲	▲
	1,950 6'5"	3.25 4.25	3,070 6,770	■	■
	1,950 6'5"	3.50 4.58	3,180 7,010	▲	▲
	2,150 7'1"	3.50 4.58	3,180 7,010	▲	▲
	1,500 4'11"	2.00 2.62	2,600 5,730	▲	▲
	1,700 5'7"	2.30 3.01	2,800 6,170	▲	▲
	1,700 5'7"	2.50 3.27	3,050 6,720	▲	▲
	1,950 6'5"	2.70 3.53	3,100 6,830	▲	▲
	1,950 6'5"	3.00 3.92	3,300 7,280	▲	■
	1,500 4'11"	2.00 2.62	2,600 5,730	▲	▲
	1,700 5'7"	2.30 3.01	2,800 6,170	▲	▲
	1,700 5'7"	2.50 3.27	3,050 6,720	▲	▲
HDV ³⁾	1,950 6'5"	2.70 3.53	3,100 6,830	▲	▲
	1,950 6'5"	3.00 3.92	3,300 7,280	▲	■

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

¹⁾ HD backhoe bucket with Liebherr teeth Z 70

²⁾ HDR backhoe bucket with Liebherr teeth Z 70

³⁾ HDV backhoe bucket with Liebherr teeth Z 70

Other backhoe buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³ / 3,400 lb/yd³, ■ = ≤ 1.8 t/m³ / 3,000 lb/yd³, ▲ = ≤ 1.65 t/m³ / 2,800 lb/yd³

Lift capacities

with mono boom 6.95 m / 22'10", counterweight 9.4 t / 20,720 lb and track pads 600 mm / 24"

Stick 2.90 m / 9'6"

Under-carriage		3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft						
																m	ft in	
LC	9.0m t															11.8*	11.8*	7.1
	30ft lb															26,3*	26,3*	22'11"
	7.5m t							10.9	12.9*							9.2	11.0*	8.3
	25ft lb							23,5	28,4*							20,7	24,4*	26'11"
	6.0m t							10.6	13.5*	7.9	11.2*					7.9	10.8*	9.0
	20ft lb							23,0	29,4*							17,5	23,8*	29'6"
	4.5m t			21,5	23,4*	14,1	17,4*	10,2	14,6*	7,8	12,1					7,1	10,9*	9,5
	15ft lb			46,5	50,0*	30,6	37,6*	22,1	31,7*	16,7	26,0					15,8	23,9*	31'1"
	3.0m t					13,3	19,7*	9,8	15,6	7,6	11,8					6,8	10,6	9,7
	10ft lb					28,7	42,5*	21,1	33,6	16,3	25,5					14,9	23,3	31'10"
LC	1.5m t					12,7	21,2*	9,4	15,2	7,4	11,6					6,7	10,5	9,7
	5ft lb			26,8*	26,8*	27,4	45,9	20,3	32,7	15,9	25,0					14,7	23,1	31'10"
	0m t			17,7*	17,7*	12,4	21,0	9,2	14,9	7,2	11,5					6,9	10,8	9,4
	0ft lb			40,5	41,4*	26,8	45,1	19,9	32,1	15,7	24,8					15,1	23,9	30'11"
	-1.5m t	14,0*	14,0*	18,9	27,3*	12,4	20,9	9,1	14,9							7,4	11,7	8,9
	-5ft lb	31,8*	31,8*	40,7	59,4*	26,6	45,0	19,7	32,0							16,4	25,9	29'1"
	-3.0m t	26,2*	26,2*	19,2	24,5*	12,5	19,3*	9,3	15,0							8,6	13,5*	8,0
	-10ft lb	59,4*	59,4*	41,4	53,2*	27,0	41,7*	20,1	32,4*							19,0	29,8*	26'2"
	-4.5m t	24,4*	24,4*	19,8	19,8*	12,9	15,4*									11,1	12,9*	6,8
	-15ft lb	52,5*	52,5*	42,5*	42,5*	28,0	32,7*									24,9	28,3*	21'11"
	-6.0m t																	
	-20ft lb																	

Stick 3.35 m / 11'

Under-carriage		3.0m 10 ft		4.5m 15 ft		6.0m 20 ft		7.5m 25 ft		9.0m 30 ft		10.5m 35 ft			m	ft in
																
LC	9.0m t													9.9*	9.9*	7.7
	30 ft lb							11.0	11.1*					22.0*	22.0*	24'10"
	7.5m t							11.0	12.1*					8.4	9.3*	8.8
	25 ft lb							23.6	26.5*					18.8	20.6*	28'6"
	6.0m t							10.7	12.7*	8.0	12.0*			7.3	9.1*	9.5
	20 ft lb							23.1	27.8*	17.1	25.5*			16.1	20.1*	31'
	4.5m t			21.6*	21.6*	14.3	16.4*	10.3	13.9*	7.8	12.1			6.6	9.2*	9.9
	15 ft lb			46.2*	46.2*	30.8	35.5*	22.1	30.2*	16.7	26.0			14.6	20.2*	32'6"
	3.0m t			20.0	21.9*	13.4	18.8*	9.8	15.2*	7.5	11.8			6.3	9.5*	10.1
	10 ft lb			43.2	55.9*	28.9	40.7*	21.1	33.0*	16.2	25.4			13.8	20.8*	33'2"
LC	1.5m t			15.1*	15.1*	12.7	20.7*	9.4	15.1	7.3	11.5			6.2	9.8	10.1
	5 ft lb			36.2*	36.2*	27.4	44.7*	20.2	32.6	15.7	24.9			13.6	21.5	33'1"
	0m t			18.6	18.9*	12.3	20.9	9.1	14.8	7.1	11.4			6.3	10.0	9.8
	0 ft lb			40.1	44.0*	26.5	44.9	19.6	31.9	15.4	24.5			14.0	22.1	32'4"
	-1.5m t	13.8*	13.8*	18.7	27.1*	12.2	20.8	9.0	14.7	7.1	11.3			6.8	10.8	9.3
	-5 ft lb	31.3*	31.3*	40.1	60.7*	26.3	44.6	19.4	31.6	15.3	24.5			15.0	23.8	30'7"
	-3.0m t	23.4*	23.4*	18.9	25.6*	12.3	19.8*	9.1	14.8					7.7	12.3	8.5
	-10 ft lb	53.1*	53.1*	40.6	55.5*	26.5	42.9*	19.6	31.9					17.1	27.4	27'11"
	-4.5m t	27.6*	27.6*	19.4	21.5*	12.6	16.8*							9.7	12.6*	7.3
	-15 ft lb	59.5*	59.5*	41.7	46.2*	27.3	35.8*							21.6	27.7*	23'11"
	-6.0m t															
	-20 ft lb															

Stick 3.90 m / 12'10"

Under-carriage		3.0m 10ft		4.5m 15ft		6.0m 20ft		7.5m 25ft		9.0m 30ft		10.5m 35ft						
																m	ft in	
LC	9.0m t															8.0*	8.0*	8.2
	30ft lb															17.8*	17.8*	26'6"
	7.5m t									8.1	8.9*					7.6*	7.6*	9.2
	25ft lb									17.0*	17.0*					16.9*	16.9*	30'
	6.0m t							10.8	11.8*	8.0	11.2*					6.8	7.5*	9.9
	20ft lb							23.2	25.7*	17.2	24.2*					15.0	16.6*	32'5"
	4.5m t					14.5	15.2*	10.3	13.0*	7.7	11.8*					6.2	7.7*	10.3
	15ft lb					31.2	32.9*	22.2	28.3*	16.7	25.7*					13.6	16.9*	33'10"
	3.0m t			20.4	24.5*	13.5	17.7*	9.8	14.4*	7.5	11.8	5.9	8.2*			5.8	8.0*	10.5
	10ft lb			44.1	52.6*	29.1	38.3*	21.1	31.3*	16.1	25.3					12.9	17.5*	34'6"
LC	1.5m t			19.0	21.9*	12.7	19.8*	9.3	15.1	7.2	11.5					5.7	8.5*	10.5
	5ft lb			41.0	52.1*	27.4	42.9*	20.1	32.5	15.5	24.7					12.6	18.7*	34'5"
	0m t	8.4*	8.4*	18.4	22.1*	12.2	20.8	9.0	14.7	7.0	11.2					5.8	9.3	10.2
	0ft lb	19.1*	19.1*	39.7	51.1*	26.3	44.7	19.3	31.6	15.0	24.2					12.9	20.6	33'7"
	-1.5m t	14.8*	14.8*	18.3	27.5*	12.0	20.5	8.8	14.5	6.9	11.1					6.2	9.9	9.8
	-5ft lb	33.3*	33.3*	39.4	61.6*	25.8	44.1	19.0	31.2	14.9	24.0					13.7	22.0	32'
	-3.0m t	22.1*	22.1*	18.5	26.5*	12.0	20.3*	8.8	14.5	7.0	11.2					7.0	11.2	9.0
	-10ft lb	50.0*	50.0*	39.7	57.5*	25.8	43.8*	19.0	31.3							15.4	24.8	29'5"
	-4.5m t	31.0*	31.0*	18.9	23.2*	12.2	17.9*	9.0	13.8*							8.5	12.6*	7.9
	-15ft lb	67.0*	67.0*	40.6	49.9*	26.4	38.5*	19.6	29.2*							19.0	27.8*	25'8"
-6.0m t			17.2*	17.2*	12.7*	12.7*									12.0*	12.0*	6.2	
-20ft lb			36.3*	36.3*											26.2*	26.2*	20'	

Lift capacities

with mono boom 7.70 m / 25'3", counterweight 9.4 t / 20,720 lb and track pads 600 mm / 24"

Stick 2.90 m / 9'6"

Under-carriage		3.0m 10 ft		4.5m 15 ft		6.0m 20 ft		7.5m 25 ft		9.0m 30 ft		10.5m 35 ft				m ft in
																
LC	9.0m t													9.6	11.4*	8.1
	30 ft lb							23.5	26.0*					21.7	25.3*	26'1"
	7.5m t							10.8	12.0*	7.9	11.5*			7.8	10.9*	9.1
	25 ft lb							23.3	26.2*					17.3	24.1*	29'8"
	6.0m t					14.5	15.0*	10.4	12.9*					6.7	10.5	9.8
	20 ft lb					31.4	32.4*	22.4	28.0*	16.8	25.6*			14.9	23.3	32'1"
	4.5m t					13.4	17.4*	9.8	14.1*	7.5	11.8			6.1	9.7	10.2
	15 ft lb					29.1	37.5*	21.3	30.5*	16.2	25.5			13.6	21.3	33'7"
	3.0m t					12.5	19.6*	9.3	15.1	7.2	11.5			5.8	9.2	10.4
	10 ft lb					27.1	42.2*	20.1	32.5	15.6	24.8			12.8	20.4	34'2"
	1.5m t					11.9	20.5	8.9	14.6	7.0	11.2			5.7	9.1	10.4
	5 ft lb					25.8	44.1	19.3	31.5	15.1	24.2			12.6	20.1	34'2"
	0m t					11.7	20.2	8.7	14.4	6.8	11.1			5.9	9.4	10.2
	0 ft lb					25.3	43.5	18.8	31.0	14.8	23.9			12.9	20.7	33'5"
	-1.5m t			18.0*	18.0*	11.7	20.2	8.6	14.3	6.8	11.0			6.3	10.0	9.7
	-5 ft lb			39.1	41.6*	25.2	43.4	18.6	30.8	14.7	23.8			13.8	22.2	31'8"
	-3.0m t	19.2*	19.2*	18.4	23.3*	11.9	18.9*	8.7	14.4					7.1	11.4	8.9
	-10 ft lb	43.6*	43.6*	39.7	50.7*	25.6	41.0*	18.9	31.1					15.6	25.2	29'1"
	-4.5m t	23.5*	23.5*	18.9	19.9*	12.2	16.2*	9.1	12.7*					8.7	11.9*	7.8
	-15 ft lb	50.9*	50.9*	40.7	42.9*	26.4	34.9*	19.7	26.7*					19.4	26.1*	25'4"
	-6.0m t													10.8*	10.8*	6.0
	-20 ft lb															

Stick 3.35 m / 11'

Under-carriage		3.0m 10 ft		4.5m 15 ft		6.0m 20 ft		7.5m 25 ft		9.0m 30 ft		10.5m 35 ft				m ft in
																
LC	9.0m t															8.6
	30 ft lb															9.6*
	7.5m t															8.6
	25 ft lb															27'11"
	6.0m t									8.0	10.8*					7.1
	20 ft lb									17.2	23.7*					9.2*
	4.5m t									7.8	11.1*					9.6
	15 ft lb									15.9	20.3*					31'4"
	3.0m t									6.2	9.1*					10.3
	10 ft lb									13.8	20.0*					33'7"
	1.5m t									5.9	9.3					10.7
	5 ft lb									12.6	19.9					35'
	0m t									5.7	9.1					10.9
	0 ft lb									11.9	19.0					35'7"
	-1.5m t									5.3	8.5					10.8
	-5 ft lb									11.7	18.8					35'6"
	-3.0m t									5.4	8.7					10.6
	-10 ft lb									11.9	19.2					34'10"
	-4.5m t									5.7	9.3					10.1
	-15 ft lb									12.7	20.5					33'2"
	-6.0m t									6.4	10.4					9.4
	-20 ft lb									14.2	23.0					30'8"

Stick 3.90 m / 12'10"

Under-carriage		3.0m 10 ft		4.5m 15 ft		6.0m 20 ft		7.5m 25 ft		9.0m 30 ft		10.5m 35 ft				m ft in
																
LC	9.0m t															7.8*
	30 ft lb															17.3*
	7.5m t															17.3*
	25 ft lb															29'6"
	6.0m t															6.6
	20 ft lb															7.6*
	4.5m t															10.0
	15 ft lb															14.7
	3.0m t															16.7*
	10 ft lb															32'8"
	1.5m t															5.8
	5 ft lb															7.6*
	0m t															10.7
	0 ft lb															12.9
	-1.5m t															16.7*
	-5 ft lb															34'11"
	-3.0m t															5.3
	-10 ft lb															7.7*
	-4.5m t															11.1
	-15 ft lb															11.7
	-6.0m t															17.0*
	-20 ft lb															36'4"

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

The load values are quoted in tons (t) / lb x 1,000 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 / 24" wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 730 kg / 1,610 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

Lift capacities

with mono boom ME 6.50 m / 21'4", counterweight 9.4 t / 20,720 lb and track pads 600 mm / 24"

Stick ME 2.50 m / 8'2"

Under-carriage	3.0m 10 ft	4.5m 15 ft	6.0m 20 ft	7.5m 25 ft	9.0m 30 ft	10.5m 35 ft	ft in	m
9.0m t			14.8*	14.8*			14.7*	14.7*
30 ft lb							32.9*	32.9*
7.5m t							10.9	13.3*
25 ft lb							24.6	29.4*
6.0m t			14.8	16.4*	10.5	14.8*	9.0	12.7*
20 ft lb			32.0	35.7*	22.5	32.3*	20.1	28.1*
4.5m t		21.5	24.3*	14.1	18.3*	10.1	8.1	12.6
15 ft lb		46.4	52.1*	30.4	39.7*	21.9	17.8	27.9
3.0m t			13.3	20.3*	9.7	15.5	7.6	11.9
10 ft lb		42.7	44.9*	28.7	44.0*	21.0	16.7	26.3
1.5m t			14.1*	14.1*	12.7	21.4	7.5	11.8
5 ft lb			35.1*	35.1*	27.5	46.0	16.5	26.1
0m t			19.0	23.2*	12.5	21.1	7.8	12.3
0 ft lb			40.8	54.8*	26.9	45.3	17.1	27.2
-1.5m t	17.5*	17.5*	19.1	26.3*	12.5	20.5*	8.6	13.7
-5 ft lb	40.1*	40.1*	41.1	57.2*	26.9	44.5*	19.0	30.3
-3.0m t	27.0*	27.0*	19.5	22.4*	12.8	17.5*	10.4	13.7*
-10 ft lb	58.9*	58.9*	42.0	48.4*	27.6	37.7*	23.0	30.2*
-4.5m t							13.1*	13.1*
-15 ft lb								5.2

Stick ME 2.90 m / 9'6"

Under-carriage	3.0m 10 ft	4.5m 15 ft	6.0m 20 ft	7.5m 25 ft	9.0m 30 ft	10.5m 35 ft	ft in	m
9.0m t							12.0*	12.0*
30 ft lb							26.8*	26.8*
7.5m t				10.7	13.1*		10.2	11.0*
25 ft lb				22.9	25.0*		22.8	24.4*
6.0m t			15.0	15.6*	10.6	14.1*	8.5	10.7*
20 ft lb			32.4	33.9*	22.7	30.8*	18.9	23.6*
4.5m t		21.9	22.9*	14.2	17.6*	10.2	7.6	10.7*
15 ft lb		47.4	49.1*	30.7	38.1*	22.0	16.9	23.7*
3.0m t		20.1	27.4*	13.4	19.8*	9.8	7.2	11.1*
10 ft lb		43.5	58.9*	28.9	42.7*	21.1	15.9	24.5*
1.5m t		19.2	20.7*	12.8	21.3*	9.4	7.1	11.2
5 ft lb		41.3	50.0*	27.6	46.1*	20.3	15.6	24.7
0m t		18.9	26.0*	12.5	21.1	9.2	7.3	11.6
0 ft lb		40.7	60.8*	26.9	45.3	19.9	16.1	25.6
-1.5m t	18.4*	18.4*	19.0	27.3*	12.4	20.9*	8.0	12.8
-5 ft lb	41.8*	41.8*	40.8	59.2*	26.7	45.1	17.7	28.2
-3.0m t	30.2*	30.2*	19.3	23.8*	12.6	18.5*	9.5	13.7*
-10 ft lb	65.7*	65.7*	41.5	51.5*	27.2	39.9*	21.0	30.2*
-4.5m t		17.6*	17.6*	12.7*	12.7*		12.4*	12.4*
-15 ft lb		37.5*	37.5*				27.0*	27.0*

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

The load values are quoted in tons (t) / lb x 1,000 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 / 24" wide track pads. Indicated loads are based on ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity (indicated via *). Without bucket cylinder, link and lever the lift capacities will increase by 810 kg / 1,790 lb. Lifting capacity of the excavator is limited by machine stability and hydraulic capacity.

Determine maximum load lift from load lift chart displayed in the operator's cab or from load lift chart detailed in the operator's manual supplied with the machine.

Information & Sales



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Serial equipment



Undercarriage

Track components & tracks & steps

Lashing eyes
Sprocket with dirt ejector
Track and carrier rollers, sealed and lifetime-lubricated
Tracks, sealed and greased



Equipment

Boom

Anti-drift system boom cylinders
Anti-drift system stick cylinder
Boom cylinders regeneration
Pivot points made of cast steel
SAE split flanges on high pressure lines
Stick cylinder regeneration

Stick & attachment mounting

Priority setting between speed and force of the stick-in movement
Stick bottom protection



Uppercarriage

Hydraulic & engine

Air filter with automatic dust ejector
Common-Rail injection system
Dedicated swing circuit
DEF tank filling indicator²⁾
DEF tank lockable access hatch²⁾
Engine coolant level, visible from the cab
Engine hood with gas spring opening
Filter with integrated fine filters
Filters accessible from ground level
Fixed geometry turbocharger
Fuel fine filter
Fuel pre-filter and water separator
Fuel priming pump
Hydraulic oil level visible from ground level
Hydraulic pressure measuring ports
Intercooler
Liebherr Positive Control system with 2 independent circuits
Lockable fuel tank cap with padlock
Pressure accumulator for controlled lowering of equipment with engine turned off
Protection grid on radiator fan
Swing drive gearbox oil level, visible from the cab
Swing-out radiators

Counterweight & inspection

Counterweight standard 9.4 t / **20,720 lb**

Options

Access platforms without protruding parts
Anti skid surfaces
Handrails
Lockable service doors
Lockable storage and accessories compartment
Magnetic rod
Main switch accessible from ground level
Main switch, electric, with timer
Main switch, manual, lockable
Sound insulation



Cab

Interior

Air-conditioned bottle holder
Air-conditioned storage compartment
Armrests adjustable in length, height and inclination
Automatic air conditioning
Coat hook
Consoles linked to the seat and adjustable
Diagnostic socket
Document holder behind seat
Emergency hammer with seat belt cutter
Emergency stop hydraulic and engine in cab
Hand free kit
Hour meters, accessible from ground level
Inner temperature sensor
Interior lighting LED
Key storage
Liebherr Connect Hard and Software; consider the Liebherr Connect-license customer terms of a license
Mood lighting LED
Outer temperature sensor
Radio Comfort
Roll-down sun blinds for windscreen and roof window
Rubber floor mat, fixed on floor and removable
Seat belt reminder
Socket in cab (24 V)
Sockets in cab (USB)
Solar radiation sensor
Storage nets
Storage space backpack
Storage tablet
Tilttable console left with safety lever

Exterior

Bottom windscreen wiper
Cab air filters, accessible from ground level
Cab door sliding windows
Integrated antenna
Laminated right hand side window
Preparation for top and front guard FOPS-FGPS
Rain hood over front window opening
Rear window emergency exit
Tinted windows
Windscreen wiper

Joystick

Handrests elevated for joysticks

Use & operation

DEF consumption on touchscreen ²⁾
Engine oil level on touchscreen
Fuel consumption on touchscreen
Independent travel ¹⁾
Liebherr Power Efficiency Engine Control
Movement priority setting between swing and boom
Power mode selector
Swing braking torque adjustable
Travel speed management ¹⁾



Control

Safety & operation

Automatic engine idling / speed increase
Horn
Modetronic
Positioning swing brake automatic

Hydraulic & control

10" color touchscreen
DEF level on touchscreen ²⁾
Display controller button
Display with haptic feedback
Drive-by-joysticks ¹⁾
Fuel level on touchscreen
Hydraulic oil level on touchscreen
Machine settings personalized on display
Power modes
Start / Stop button
Touchpad 3.5"

Assistance systems

Inclinometer
Integrated sensors for assistance systems
Machine control 2D
Smartphone interface



Packages

Smart Travel

¹⁾ equipment not individually available, but only as predefined packages

²⁾ depending on the exhaust gas after-treatment system installed

Equipment standard / option

Undercarriage

Track components & tracks & steps	
Chain guide 1 piece	●
Chain guide 3 pieces	+
Chain guide 4 pieces	+
Chain guide full length	+
Cover and base plate for undercarriage center section	●
D7G chains 600 mm / 24" double grouser track pads 52 links	+
D7G chains 600 mm / 24" triple grouser track pads 52 links	●
D7G chains 750 mm / 30" triple grouser track pads 52 links	+
D7G chains 900 mm / 35" triple grouser track pads 52 links	+
Reinforced cover and base plate for undercarriage center section	+
Steps	●
Travel drive gearbox protection	+
Travel motor housing protection	+
Undercarriage LC, track gauge 2,740 mm / 9'	●

Equipment

Boom	
Boom bottom protection	+
Boom cylinders rod protection	+
Floating boom	+
Headlight guards on boom, right and left	+ ¹⁾
Headlights on boom, LED, 2 pieces	+ ¹⁾
Headlights on boom, LED+, 2 pieces	+ ¹⁾
Main control valve block filters	+ ¹⁾
Mono boom 6.95 m / 22'10"	+
Mono boom 7.70 m / 25'3"	+
Mono boom ME 6.50 m / 21'4"	+
Pipe fracture safety valve for stick cylinder	+
Pipe fracture safety valves for boom cylinders	+
Stick & attachment mounting	
Bucket cylinder rod protection	+
Centralized lubrication extended for connecting link	+
Quick coupler SWA 77 hydraulic for sealed stick	+
Stick ME sealed 2.50 m / 8'2"	+
Stick ME sealed 2.90 m / 9'6"	+
Stick sealed 2.90 m / 9'6"	+
Stick sealed 3.35 m / 11'	+
Stick sealed 3.90 m / 12'10"	+

Uppercarriage

Hydraulic & engine	
Air pre-filter with cyclonical dust trap	+
Automatic engine shutdown after idling (with timer)	+
Automatic engine shutdown after idling (without timer)	+
Bypass filter for hydraulic oil	+
Declaration of conformity (spark arrester)	+
Electrical cabinet for pre-heating system (120V)	+
Engine shut-down with overrun	+
Exhaust gas after-treatment system – DOC + DPF + SCR	+
Hydraulic oil, Liebherr Hydraulic Basic 100 (0 to +55 °C / 32 to 131 °F)	+
Hydraulic oil, Liebherr Hydraulic HVI (-20 to +40 °C / -4 to +104 °F)	●
Hydraulic oil, Liebherr Hydraulic Plus 37 (-30 to +40 °C / -22 to +104 °F)	+
Hydraulic oil, Liebherr Hydraulic Plus, high performance oil (-30 to +45 °C / -22 to +113 °F)	+
Lighting for engine compartment	+ ¹⁾
Power Pack EU Stage V + USA Tier 4 Final	●
Power Pack Non regulated countries	+
Preheating coolant	+
Preheating fuel	+
Preheating hydraulic oil	+
Radiator fine mesh protection grid	+
Reversible fan drive	+
Tank refilling pump DEF	+
Tank refilling pump fuel	+
Tropical execution	+
Uppercarriage side rubber bumpers	+
Wiggins coupling for engine oil	+
Wiggins coupling for fuel	+
Counterweight & inspection	
Catwalk front left	+
Catwalk tiltable front left	+
Catwalks left and right	+
Motorized tiltable access ladder	+
Standard uppercarriage access	+
Uppercarriage platform guardrails	+
Uppercarriage side access platform with lockable storage	●
Warning beacons on uppercarriage, rear, LED, 2 pieces	+
Options	
Centralized lubrication system (automatic)	●
Centralized lubrication system (manual)	+
Coming / Leaving Home	+ ¹⁾
Extended tool set including tool box	+
Headlight on uppercarriage, lateral left, LED+, 1 piece	+ ¹⁾
Headlight on uppercarriage, lateral right, LED+, 1 piece	+ ¹⁾
Headlights on uppercarriage, front, LED, 2 pieces, protections included	+ ¹⁾
Headlights on uppercarriage, front, LED+, 2 pieces, protections included	+ ¹⁾
Headlights on uppercarriage, rear, LED+, 2 pieces	+ ¹⁾
Hydraulic tank shut-off valve	+ ¹⁾
Lighting for cab access	+ ¹⁾
Lighting for tank area	+ ¹⁾
Lighting for uppercarriage access	+ ¹⁾
Luminosity control (LED+ headlights)	+ ¹⁾
Preparation for fire protection system SBF 127	+
Rearview mirror on counterweight	●
Rearview mirror on front right hand side	●
Reflective warning stickers	+
Socket on uppercarriage (24 V)	+
Swing ring and lubrication hoses protection	+
Tool set	●
Uppercarriage bottom and side protection	+
Uppercarriage bottom closure sheets	●
Electro	
Batteries high capacity	+
Batteries standard capacity	●



Cab

Interior	
2-points seat belt, 2"	●
2-points seat belt, 3"	+
3-points seat belt, 2"	+
Auxiliary heater programmable	+
Cleaning air gun	+
Fire extinguisher	+
Footrest	+
Mobile phone holder with inductive charging	+
Multifunction mounting bracket	+
Operator's seat Comfort	●
Operator's seat cover	+
Operator's seat Premium	+
Remote cab lock	+ ¹⁾
Roll-down sun blinds for rear and side window, right	+
Travel alarm system standard switchable	+
Travel pedals with travel levers removable	+
Exterior	
Electrically adjustable and heated outside rear-view mirrors	+
FGPS front guard with side opening	+
FOPS top guard	+
Headlights on cab, front, LED, 2 pieces	+ ¹⁾
Headlights on cab, front, LED+, 2 pieces	+ ¹⁾
Impact resistant one-piece windscreen	+
Rearview mirror on cab	●
Retractable laminated two-piece windscreen	+
Roof window wiper	+
ROPS	+
TOPS	+
Warning beacon foldable on cab, LED, 1 piece	+
Use & operation	
Filter for hydraulic hammer return flow	+
High pressure circuit bypass	+
High pressure circuit flow summation	+ ¹⁾
Leak oil line for attachment	+
Lift chart	+
Movement restriction for boom	+
Movement restriction for stick	+
Switch between high pressure circuit and bucket cylinder	+



Control

Safety & operation	
Overload warning system	+
Hydraulic & control	
Control John Deere switchable (ISO / John Deere)	+
Double pedal, left	+
Double pedal, right	+
High pressure circuit with Tool Control	+
Joysticks Premium	●
Medium pressure circuit	+
Assistance systems	
Bucket Fill Assist	+
Bucket Fill Assist trial version 500 hrs	●
Electronic anti-theft protection with code	+
Electronic anti-theft protection with key	+
Machine control 3D Leica	+
Machine control 3D ready Leica	+
Machine control semi-automatic Leica	+
Preparation for external machine control system	+
Rear view and right hand side view monitoring cameras	+
Rear view monitoring camera	+
Skyview 360°	+
Weighing system Liebherr	+
Weighing system Liebherr trial version 500 hrs	●



General

Coating & transport	
Declaration of conformity for particulate filter for indoor applications (according to TRGS 554)	+
Export packaging	+
Protection for sea transportation	+
Special paint	+
Standard packaging	●



Packages

Light package Comfort	+
Light package Premium	+
Light package Service	+
Light package Standard	●
Light package Surround	+
Smart Key Comfort	+
Smart Key Standard	●

● = Standard, + = Option

¹⁾ equipment not individually available, but only as predefined packages

Non-exhaustive list, please contact us for further information.

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

The Liebherr Group



Global and independent: more than 75 years of success

Liebherr was founded in 1949. With the development of the world's first mobile tower crane, Hans Liebherr laid the foundations of a successful family-run company which today comprises more than 150 companies on all continents with over 55,000 employees. The holding company of the Group is Liebherr-International AG in Bulle (Switzerland), whose shareholders are exclusively members of the Liebherr family.

Technology leadership and pioneering spirit

Liebherr regards itself as a pioneer. This spirit has enabled the company to make a decisive contribution to the technological history of many industries. Today, employees around the world still share the courage of the company founder to take new paths. They are all united by a passion for technology and fascinating products and the determination to perform outstanding work for their customers.

Widely diversified product program

Not only is Liebherr one of the biggest construction machine manufacturers in the world, it also provides high-quality, user-oriented products and services in a wide range of other areas. The product range includes the segments earthmoving, material handling, deep foundation, mining, mobile and crawler cranes, tower cranes, concrete technology, maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels.

Customized solutions and maximum customer value

Liebherr solutions are characterized by maximum precision, outstanding implementation and exceptional longevity. Its mastery of key technologies enables the company to offer its customers customized solutions. For Liebherr, customer focus does not end with the product; it also encompasses a wide range of services that make a real difference.

www.liebherr.us

WARNING

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always start and operate the engine in a well-ventilated area.
- If in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with exhaust system.
- Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov/diesel.

WARNING

This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information go to www.P65warnings.ca.gov.

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