
R 960 SME Litronic

LIEBHERR

Crawler excavator

**Generation**

5

Operating weight

60,000–61,650 kg

Motor

250 kW / 340 HP
Stage IIIA / Tier 3

Bucket capacity

3.00–3.70 m³

Performance

Performance, precision
and responsiveness

Economy

High level of productivity for
a lower overall operating cost

Reliability

Result of ongoing improvements

Comfort

Spacious, ergonomic
and high-visibility

Easy Maintenance

Simplified daily checks,
longer maintenance intervals





Performance



Performance, precision and responsiveness

Technology serving productivity

Responsive and accurate, the R 960 SME crawler excavators are high performance excavators for mass excavation works or for digging in quarries. With its proven hydraulic design and variety of operating modes, the R 960 SME excavator can be used in all major worksites or quarries.

Liebherr integration

All the major components are designed and manufactured within the Liebherr group. This includes components such as the heat engine, hydraulic pumps, electronic components (injection mapping, hydraulic control, control console) and of course the essential mechanical elements including cylinders, the slewing ring and work tools, resulting in an overall increase in productivity.

Regeneration plus

The “Regeneration plus” function allows for the accelerated lowering of the boom, reduced losses of pressure and an improved work cycle. The optimization and combination of the “zero-pressure lowering of the boom” and “Regeneration plus” functions, together with the increased power of the hydraulics, provide increased performance and lower consumption.

Power and speed

Thanks to their kinematics and hydraulic power, the R 960 SME crawler excavators develop increased breakout and digging forces. The generously sized cylinders allow you to increase the digging performance in hard materials. The mechanical connexion between the swing gear and slewing ring gives the machine a high torque and swing speed, thus improving your operating cycles.



Liebherr engine

- Stage IIIA / Tier 3 engine
- Designed specifically for construction applications
- Liebherr Common-Rail injection system for optimised output
- Automatic fuel-saving idling system
- Two-stage turbocharging with inter-cooler, for increased power at low revs and reduced fuel consumption



Choice of work mode

- E Mode – Economy: for economical and ecologically-friendly operation. Minor restriction of power without affecting the load lifting and excavating capacities
- P Mode – Power: for high excavation capacities and difficult applications. Pump flow and power are not limited
- S Mode – Sensitivity: for precision jobs and loading of materials
- P+ Mode – Full Power: especially designed for increased power; only recommended for extreme applications



Floating boom function

- Increased hydraulic flow for the other cylinders (stick and / or bucket for example)
- More power available, making it easier to extract materials and reduce work cycle times
- Increased service life when a hydraulic hammer is used

Economy



**High level of productivity for
a lower overall operating cost**

Low operating costs

Thanks to its high technology and its innovation, the Liebherr France Company increases the performance of its machines while reducing their fuel consumption. Examples of this are the new diesel engine, automatic idling, electronic engine speed sensing control, Regeneration plus function and the hydrostatic cooling system (fans operate only when necessary). Consequently, the reduced fuel consumption means less pollution.

LiDAT fleet and machine park management tool

To improve your machine management, Liebherr has developed its own data transmission system using the GPRS network. This system allows you to instantly know the position of your excavator via a web interface. Thanks to data transmission, the LiDAT system developed and manufactured by Liebherr keeps you informed about fuel consumption, number of service hours or machine faults, just to name a few. LiDAT allows you to be proactive and more responsive: organizing and maintaining your fleet for increased productivity.

An excellent after-sales service

The after-sales services can be customized to suit and respond to your specific needs. Several programs, such as ReMan, ReBuilt and Repair provide the perfect, economical solution, always including the manufacturer's quality and guarantee. A team of technicians, specialized to intervene on your machines, has all the latest-generation diagnostic tools, for a reduced down time of the machine. By following your chosen maintenance program, you will also obtain a higher resale price.



Liebherr tools

- Wide range of tools suitable for every type of application
- Tools designed for maximum productivity and durability
- Shape of buckets designed to assist the filling and stability of bulky materials during the transport stages
- Hydraulic quick coupler system



Liebherr genuine parts

- 98% availability from central warehouse
- Overnight service*
- Online documentation system
- Reliable supply for years to come, even after series production has stopped



Original lubricants

- Everything from one source, from genuine parts to original lubricants
- Competent advice on parts and lubricants
- Lubrication schedule creation

Reliability



Result of ongoing improvements

A tested and proven undercarriage

With an X-shaped design and an increased slewing ring diameter, this new undercarriage is characterized by an even distribution of stresses over the whole structure. This results in increased performance, greater load properties and an increased service life.

Safe travel

The integration of 3 guiding guards per track as standard significantly reduces the risk of tracks coming off. In addition, track pins and bearings are lubricated for life, which reduces both maintenance tasks and down time.

A tested and proven uppercarriage

A tested and proven uppercarriage and further optimised attachments guarantee robustness in even the most testing conditions.

Finest details

The hydraulic, electric and lubrication lines are laid out to ensure optimum operating safety and maximum availability. The finish paint applied before assembly and the appropriate surface treatment of the components guarantee maximum protection against corrosion. The integration of the rear camera in the counter weight elegantly highlights the overall perception of quality, safety and reliability.



Super structure

- Optimised welding penetration
- Increased structural rigidity and life
- Heavy duty conception through advanced 3D design and validation softwares

Undercarriage

- Robust design for greater resistance and a better distribution of forces
- Easy and safe transport thanks to integrated securing hooks
- Only one undercarriage (SHD) issues from the 70 ton class excavator

Key components developed by Liebherr

- Perfect harmonization of the machine elements, designed specifically for earthmoving and quarry applications
- Engine, hydraulic pumps, transfer box, transmission, rotating mechanism, slewing ring, cylinders and electronic components are designed and manufactured by Liebherr
- Specific tools and custom protection can be added at the factory

Comfort



Spacious, ergonomic and high-visibility

A spacious and ergonomic work station

The cab offers a generous space for maximum comfort. Equipped, among other things, with a pneumatic seat with heater as standard (optional with airconditioning), controls connected to the seat and high-performance automatic air-conditioning, the cab creates a pleasant working environment. All the controls are precisely laid out in an intuitive manner for greater responsiveness and concentration while working. The cab is mounted on viscoelastic studs for significantly lower vibration.

Fully automatic air-conditioning

The automatic air-conditioning with touchscreen controls has several ventilation outlets for optimum ambient air in the cab.

High resolution color touchscreen

The color touchscreen is a true human-machine interface for controlling several comfort functions, such as the radio, and more operational functions, such as work modes, tool types and even the backup camera.

A cab that's easy to look after

The possibility of working in a clean environment was an important objective in the design of the cab. It is particularly easy to maintain thanks to elements such as a keyboard with soft touch comfort keys and an easily accessible cab air filter.



Control screen

- 9" color touchscreen
- Several setting, control and surveillance options
- Robust and reliable design (Ingress Protection Rating IP65)
- Compatible high resolution video for displaying the rear camera image



Heightened visibility

- Rear camera integrated in the counterweight as standard and camera for side area monitoring, for rear visibility and heightened operating safety
- Optimized design of the whole uppercarriage providing the operator with an improved field of vision
- Secure emergency exit through the rear window



New options

- Lighting in engine compartment
- LED headlights with adjustable current value
- 360° camera
- Follow me home (headlight cutoff delay)
- Windshield wiper on bottom part

Easy maintenance



**Simplified daily checks,
longer maintenance intervals**

Simplified daily checks

The execution of the daily checks was taken into account from the start of the design, to make them simpler, more accessible and shorter. The engine oil or diesel exhaust fluid levels, for example, can be checked via the display in the operator's cab. The automatic centralised lubrication can save precious intervention time, while guaranteeing that the excavator is in optimum operating condition.

Longer service intervals

The frequency of the service intervals is optimised to guarantee that each part is functioning optimally and that the maintenance tasks are only performed as necessary. Whether it is the interval for changing the hydraulic oil, which can be up to 8,000 hours, or the interval for changing the engine oil, every 2,000 hours, everything has been taken into account to reduce the frequency of interventions and thus limit the machine's downtime and lower costs.

An exhaust gas treatment without maintenance

Thanks to its unique Liebherr design, the exhaust gas treatment is carried out in compliance with the Stage IIIA/ Tier 3 standards, without fitting a particle filter. This results in an output with no loss of productivity linked to the regeneration of these filters and, of course, no maintenance time or cost of spare parts associated with this technology.

Expert advice and service provisions

Liebherr offers an expert advice service. Qualified personnel will help you make the appropriate decisions to meet your needs: sales arguments based on the terrain, service agreements, advantageous repair alternatives, original parts management, and remote data transfer for fleet management



LiDAT data transfer system

- Complete fleet management, all from one source
- Optimized economical performance of the machine park thanks to detailed view of the distribution of operating states and times
- Reports on capacity commitment and the use of the machine park can be called up daily via the Web portal
- Precise location of the machine
- Regional delimitation and fixed downtimes increase safety and reliability



Hydraulic reservoir shut off valve

- Easy and quick interruption of the oil circuit between hydraulic reservoir and hydraulic system
- No drainage of fluid necessary for service or repair work on the hydraulic system



Central lubrication system

- The fully-automatic central lubrication system, fitted as standard, allows for rapid maintenance: It saves time-consuming individual lubricating and downtime
- All the lubrication points on the superstructure of the vehicle and the attachment hydraulics are supplied, with the exception of the connecting plate
- Engine oil level visible on display

Long live progress with the R 960 SME

① Equipment

- Cast steel elements
- Greater resistance to stresses
- Longer service life

② Tools

- Z-type Liebherr teeth for fast replacement
- Wide range of work tools

③ Automatic centralized lubrication – standard

- Reduced maintenance time
- Longer service life thanks to better lubrication

④ Undercarriage

- Robust structure thanks to the X-shaped profile
- Improved self-cleaning capacity
- Special heat treatment for low wear and tear of drive sprockets
- 3 guiding guards per track – standard



⑤ Operator's cab

- Comfortable and ergonomic
- 9" high resolution color touchscreen for heightened readability
- Rear window with improved visibility

⑥ Visibility

- Rear camera integrated in the counterweight
- Two boom-mounted lights – standard
- Optimized design of the whole uppercarriage providing the operator with a better field of vision



Technical data



Engine

Rating per ISO 9249	250 kW (340 HP) at 1,800 RPM
Torque	2,280 Nm at 1,000 RPM
Model	Liebherr D936 A7
Type	6 cylinder in-line
Bore	130 mm
Stroke	150 mm
Displacement	10.5 l
Engine operation	4-stroke diesel Common-Rail, monoturbo
Exhaust gas treatment	Engine Stage IIIA: with EGR
Cooling system	Water-cooled and integrated motor oil cooler, after-cooled and fuel cooled
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Fuel tank	734 l
Electrical system	
Voltage	24 V
Batteries	2 x 180 Ah / 12 V
Starter	24 V / 7.8 kW
Alternator	Three-phase current 28 V / 140 A
Engine idling	Sensor controlled
Motor management	Connection to the integrated excavator system controlling via CAN-BUS to the economical utilisation of the service that is available



Hydraulic controls

The controlling is conducted via the integrated excavator system technology, input and output modules, communicated via the CAN-BUS with the electronic central unit

Power distribution	Via control valves in single block with integrated safety valves
Flow summation	To boom and stick
Closed-loop circuit	For uppercarriage swing drive
Servo circuit	
Equipment and swing	Proportional via joystick levers
Travel	– Proportional control via foot pedals or removable levers – Speed pre-selection
Additional functions	Proportional regulation via foot pedals or mini-joystick



Hydraulic system

Hydraulic pumps	
For equipment and travel drive	Liebherr, variable displacement, swashplate double pump
Max. flow	2 x 380 l/min.
Max. pressure	350 bar
For swing drive	Reversible, variable displacement, swashplate pump, closed-loop circuit
Max. flow	201 l/min.
Max. pressure	375 bar
Pump regulation	Electro-hydraulic with electronic engine speed sensing regulation, pressure compensation, flow compensation
Hydraulic tank	380 l
Hydraulic system	743 l
Filtration	2 full flow filters in return line with integrated fine filter area (5 µm)
Cooling system	Cooler for water cooler, after-cooler and transmission pump oil and cooler for fuel, oil and condenser of air-conditioning with hydrostatically controlled fan drives
MODE selection	Adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmentally friendly operation or for maximum digging performance and heavy-duty jobs
RPM adjustment	Stepless adjustment of engine output via RPM at each selected mode
Tool Control	20 pre-adjustable pump flows and pressures for add-on attachments



Swing drive

Drive	Liebherr swashplate motor, shockless and antireaction
Transmission	Liebherr compact planetary reduction gears
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0-5.8 RPM stepless
Swing torque	160 kNm
Holding brake	Wet multi-disc (spring applied, pressure released)



Cab

Cab	Windscreen, totally or partially retractable (only upper part), under cab roof, LED headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large storing box and several stowing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate window shades for the sunroof window and windscreen, 12V plug, storage bins, lunchbox, cup holder
Operator's seat	Liebherr-Comfort seat, airsprung with automatic weight adjustment, vertical and longitudinal seat damping including consoles and joysticks. Seat and armrests adjustable separately and in combination (adjustable in length, height and inclination), seat heating as standard
Control system	Integrated into adjustable seat consoles
Operation and displays	Large high-resolution colour display with intuitive operation via touchscreen, video, versatile adjusting, control and monitoring facilities, e.g. climate control, implement and attachment parameters
Air-conditioning	Standard automatic air-conditioning, ambient air function, fast de-icing and demisting at the press of a button, air vents can be operated via a menu. Ambient 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
Noise emission	
ISO 6396	80 dB(A) = L_{PA} (inside cab)
2000/14/EC	108 dB(A) = L_{WA} (surround noise)



Undercarriage

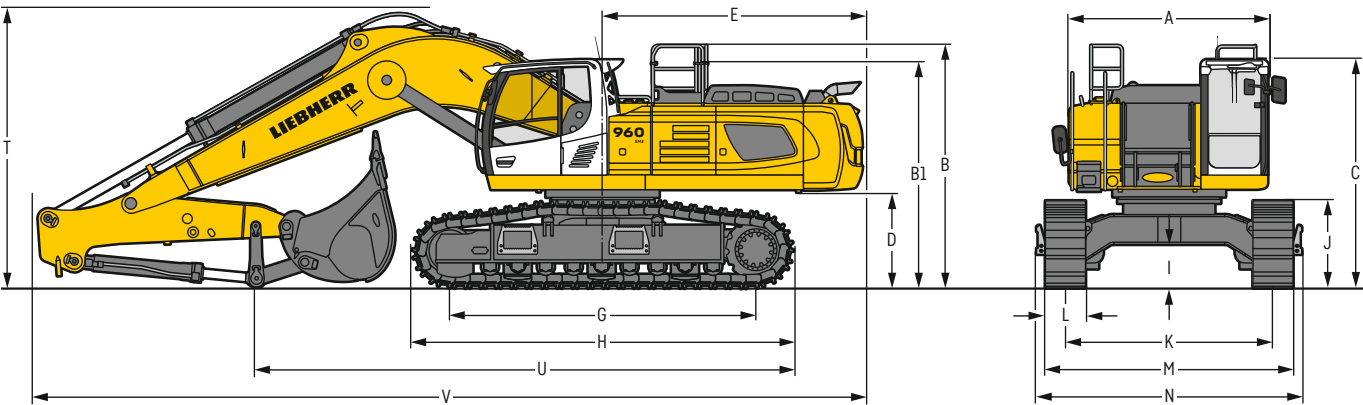
S-HD	Gauge 3,100 mm
Drive	Liebherr swashplate motor with integrated brake valve
Transmission	Liebherr compact planetary reduction gear
Maximum travel speed	3.0 km/h low range 3.6 km/h high range
Drawbar pull on crawler	478 kN
Track components	D8K, maintenance-free
Track rollers / Carrier rollers	9 / 2
Tracks	Sealed and greased
Track pads	Double grouser
Holding brake	Wet multi-disc (spring applied, pressure released)
Brake valves	Integrated into travel motor
Lashing eyes	Integrated



Equipment

Type	Combination of resistant steel plates and cast steel components
Hydraulic cylinders	Liebherr cylinders with seal and guidance systems
Bearings	Sealed, low maintenance
Lubrication	Automatic central lubrication system (except link and tilt geometry)
Hydraulic connections	Pipes and hoses equipped with SAE split-flange connections
Buckets	Standard equipped with Liebherr tooth system

Dimensions



		S-HD	mm		
A	Uppercarriage width		2,970		
B	Uppercarriage height		3,640		
B1	Uppercarriage height (handrails folded)		3,390		
C	Cab height		3,420 / 3,615 ¹⁾		
D	Counterweight ground clearance		1,440		
E	Rear-end length		3,900		
G	Wheelbase		4,575		
H	Undercarriage length		5,695		
I	Undercarriage ground clearance		655		
J	Track height		1,315		
K	Track gauge		3,100		
L	Track pad width		500	600	750
M	Width over tracks		3,710	3,710	3,850
N	Width over steps		3,970	3,970	3,970

¹⁾ with FOPS top guard

		Stick length m	Mono boom SME 6.70 m direct mounting mm
T	Boom height		4,200
U	Length on ground	2.35 SME	8,050
		2.80 SME	7,500
V	Overall length		12,400
	Bucket		3.25 m ³

Transport dimensions

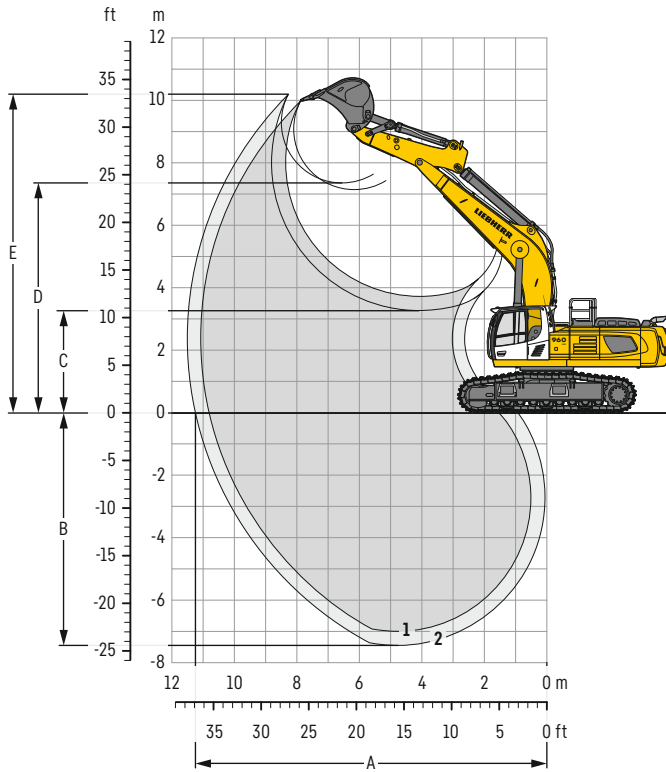
removable elements disassembled

	Mono boom SME 6.70 m		
	mm		
Pad width	500	600	750
Transport width	3,970	3,970	3,970

	mm
Transport length	12,400
Transport height	4,200
Bucket	3.25 m ³

Backhoe bucket

with mono boom SME 6.70 m



Digging envelope

without quick coupler		1	2
Stick length	m	2.35	2.80
A Max. reach at ground level	m	10.80	11.25
B Max. digging depth	m	7.00	7.45
C Min. dumping height	m	3.70	3.25
D Max. dumping height	m	7.15	7.35
E Max. cutting height	m	10.00	10.20

Forces

without quick coupler		1	2
Stick digging force (ISO 6015)	kN	321	288
Bucket digging force (ISO 6015)	kN	350	350
Stick digging force (SAE J1179)	kN	302	273
Bucket digging force (SAE J1179)	kN	304	304

Operating weight and ground pressure

The operating weight includes the basic machine with counterweight 11.0 t, mono boom SME 6.70 m, stick SME 2.80 m and HD bucket 3.25 m³ (3,400 kg).

Undercarriage		S-HD		
Pad width	mm	500	600	750
Weight	kg	60,000	60,700	61,650
Ground pressure	kg/cm ²	1.21	1.02	0.83

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

				S-HD undercarriage SME equipment (with track pads 600 mm)	
				Stick length (m)	
HD ¹⁾	Cutting width mm	Capacity ISO 7451 m ³	Weight kg	2.35	2.80
	2,100	3.25	3,400	▲	▲
	2,250	3.50	3,550	▲	■
HDV ²⁾	2,100	3.70	3,500	■	■
	1,950	3.00	3,800	▲	▲
	2,100	3.25	4,000	▲	■
	2,100	3.50	4,200	■	■

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

¹⁾ HD bucket with teeth Z 70 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

²⁾ HDV bucket with teeth Z 70 (appropriate for materials above classification 6, according to VOB, Section C, DIN 18300)

Other buckets available upon request

Max. material weight ▲ = ≤ 2.0 t/m³, ■ = ≤ 1.8 t/m³, ■ = ≤ 1.5 t/m³

Lift capacities

with mono boom SME 6.70 m, counterweight 11.0 t and track pads 600 mm

Stick SME 2.35 m

														
Under-carriage		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
														
S-HD	m													
	9.0											11.7* 11.7*		6.3
	7.5							11.0* 11.0*				11.0* 11.0*		7.6
	6.0					12.5* 12.5*		11.1* 11.1*				10.8* 10.8*		8.5
	4.5			20.5* 20.5*		14.4* 14.4*		11.9* 11.9*				10.2 10.8*		9.0
	3.0					16.3* 16.3*		12.9* 12.9*		9.9 11.1*		9.5 11.0*		9.2
	1.5					16.8 17.6*		12.4 13.6*		9.7 11.4*		9.4 11.2*		9.2
	0			20.2* 20.2*		16.5 17.8*		12.1 13.9*				9.7 11.4*		8.9
	-1.5	19.7* 19.7*		22.2* 22.2*		16.5 17.2*		12.1 13.5*				10.6 11.7*		8.4
-3.0	24.3* 24.3*		19.7* 19.7*		15.4* 15.4*						11.7* 11.7*		7.4	
-4.5			15.0* 15.0*								11.0* 11.0*		6.0	

Stick SME 2.80 m

Under-carriage													
		3.0m		4.5m		6.0m		7.5m		9.0m			
m													
9.0												10.1*	10.1*
7.5								10.1*	10.1*			9.2*	9.2*
6.0								10.5*	10.5*			8.9*	8.9*
4.5												8.9*	8.9*
3.0												8.9	9.2*
1.5												8.8	9.8*
0												9.0	10.8*
-1.5		20.2*	20.2*	23.0*	23.0*	16.3	17.4*	12.0	13.6*			9.7	11.0*
-3.0		27.3*	27.3*	20.8*	20.8*	16.0*	16.0*	12.2	12.3*			11.2*	12.2*
-4.5		21.6*	21.6*	16.8*	16.8*	12.7*	12.7*					10.9*	10.9*

 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) 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 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 950 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 safety check valves on hoist cylinders and stick cylinder(s), when they are used for lifting operations which require the use of lifting accessories.

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.

Serial equipment



Undercarriage

Lashing eyes
Sprocket with dirt ejector
Track and carrier rollers, sealed and lifetime-lubricated
Travel motor housing protection
Undercarriage S-HD



Uppercarriage

Access platforms without protruding parts
Anti-skid surfaces
Automatic swing brake lock
Counterweight heavy 11.0t
Engine hood with gas spring opening
Extended tool set including tool box
Handrails
Lockable fuel tank cap with padlock
Lockable service doors
Lockable storage box
Main switch, manual, lockable
Protection grid on radiator fan
Sound insulation
Swing-out radiators



Hydraulic system

Dedicated swing circuit
Filter with integrated fine filters
Hydraulic pressure measuring ports
Hydraulic tank shut-off valve
Magnetic rod
Pressure accumulator for controlled lowering of equipment with engine turned off



Engine

Air filter with automatic dust ejector
Automatic engine idling / speed increase, controlled via joystick sensors
Common-Rail injection system
Exhaust gas after-treatment system – EGR
Fixed geometry turbocharger
Fuel fine filter
Fuel pre-filter and water separator
Fuel priming pump
Intercooler
Power Pack EU Stage IIIA (for select markets)
Stepless adjustable engine speed



Cab

2" seat belt with retractor
9" multifunction colour touchscreen
Air conditioning, automatic, tri-zone, controlled via display
Armrests adjustable in length, height and inclination
Bottle holder
Cab air filters housing, accessible from ground level
Cab door sliding windows
Cigarette lighter
Coat hook
Electric socket in cabin (12V)
Electric socket in cabin (24V)
Emergency hammer
Engine oil level on touchscreen
Footrest
Fuel consumption on touchscreen
Fuel level on touchscreen
Interior lighting
Laminated right hand side window
LiDAT Plus (Liebherr data transfer system)*
Mechanical hour meter, visible from ground level
Movement priority between swing and boom, adjustable via touchscreen
Rain hood over front window opening
Rearview mirror
Rear window emergency exit
Roll-down sun blinds for windscreen and roof window
Rubber floor mat, fixed on floor and removable
Storage box
Storage nets
Storage spaces
Tilttable console left
Tinted windows
Visco-elastic damping
Windscreen wiper and washer
Work mode selector



Equipment

Anti-drift system boom cylinders
Anti-drift system stick cylinder
Boom bottom protection
Boom cylinders regeneration
Pipe fracture safety valves for boom cylinders
Pivot points made of cast steel
SAE split flanges on high pressure lines
Stick bottom protection
Stick cylinder regeneration

* optionally extendable after one year

Equipment standard / option

Undercarriage

Chain guide 3 pieces	●
Chain guide 4 pieces	+
Chain guide full length	+
Reinforced cover and base plate for undercarriage centre section	+
Steps	●
Track pads double grouser 500 mm, chamfered	+
Track pads double grouser 600 mm, chamfered	●
Track pads double grouser 750 mm, chamfered	+
Undercarriage protection plate for drop-ball application	+

Upper carriage

Air pre-filter with cyclonical dust trap	+
Centralised lubrication system (automatic)	+
Centralised lubrication system (manual)	●
Catwalk tiltable front left	+
Catwalks tiltable left and right	+
Fixed cab riser 800 mm	+
Front right rearview mirror	●
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⁾
Lighting for tank area	+ ¹⁾
Lighting for uppercarriage access	+ ¹⁾
Pre-heating system for fuel	+
Radiator fine mesh protection grid	+
Reversible fan drive	+
Special painting	+
Swing ring and lubrication hoses protection	+
Tank refilling pump fuel	+

Hydraulic system

Bypass filter for hydraulic oil	+
Liebherr hydraulic oil	●

Engine

Engine shut-down with overrun	+
Lighting for engine compartment	+ ¹⁾

Cab

Acoustic travel alarm deactivatable	+
Auxiliary heater programmable	+
Bottom windscreen wiper	+
Cool box (12 V)	+
Dark tinted windows	+
Electrically adjustable and heated outside rear-view mirrors	+
Emergency stop in cab	+
FGPS front guard	+
FGPS front guard tiltable	+
Filter for hydraulic hammer return flow	+
Fire extinguisher	+
Follow me home	+
FOPS top guard	+
Handrests elevated for joysticks	+
Headlights on cab, front, LED, 2 pieces	+ ¹⁾
Headlights on cab, front, LED+, 2 pieces	● ¹⁾
Headlights on cab roof, front, LED+, 2 pieces	+ ¹⁾
High pressure circuit with Tool Control (20 attachment adjustments on display)	+
Impact resistant one-piece windscreen	+
Impact resistant roof window	+
Integral protection guard	●
Laminated roof window	●
Lighting for cabin access	+ ¹⁾
Luminosity control (LED+ headlights)	+ ¹⁾
Medium pressure circuit	+
Operator seat Comfort	●
Operator seat Premium	+
Operator seat Standard	+
Overload warning system	+
Radio Comfort	+
Radio pre-installation	●
Rear view monitoring camera	●
Retractable laminated two-piece windscreen	●
Right hand side view monitoring camera	●
Roof sun shield	+
Roof window wiper	+
Rotating beacon on cabin, LED, 1 piece	+
Shortcut buttons on joystick configurable	●
Sun visor	+
Windscreen bottom protection grid	+

Equipment

Boom cylinders rod protection	+
Bucket cylinder rod protection	●
Floating boom	+
Headlights on boom, LED, 2 pieces, protections included	● ¹⁾
Headlights on boom, LED+, 2 pieces, protections included	+ ¹⁾
Mono boom SME 6.70 m	●
Pipe fracture safety valve for stick cylinder	+
Preparation for ripper tooth	+
Quick coupler SWA 77 hydraulic	+
Special painting	+
Stick SME 2.35 m	●
Stick SME 2.80 m	+

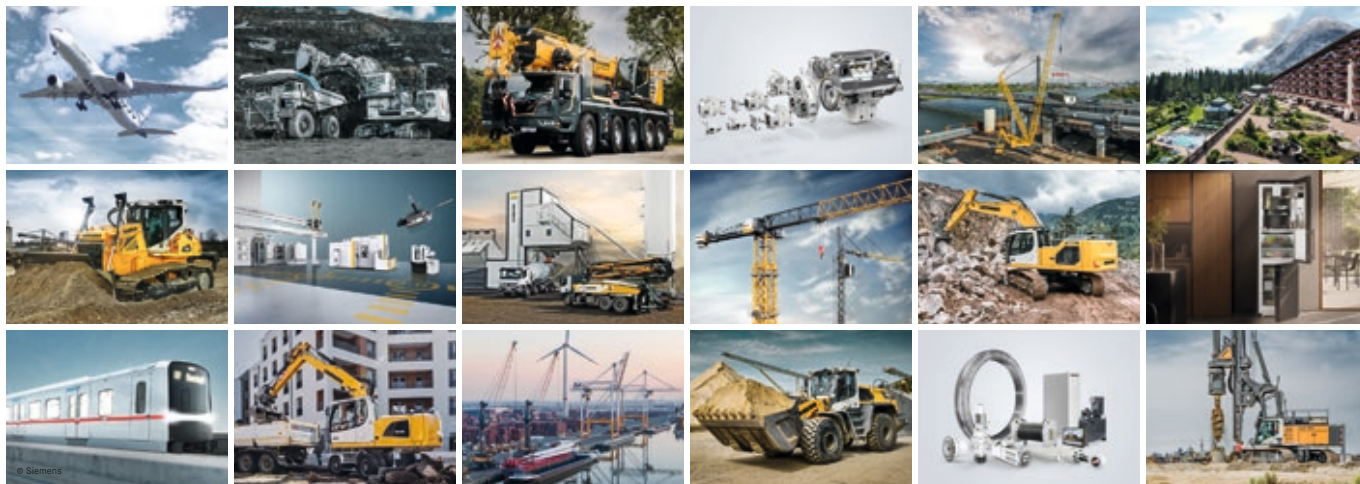
● = Standard, + = Option

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 70 years of success

Liebherr was founded in 1949 when, with the development of the world's first mobile tower crane, Hans Liebherr laid the foundations for a family-run company which now has more than 50,000 employees and comprises over 150 companies across every continent. 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 is a pioneer and its forward-looking approach has seen it make important contributions to technology history over a wide variety of industries. Employees throughout the world continue to share the courage of the company founder, sharing a passion to produce innovative products and a determination to provide world-leading equipment and machinery.

Diversified product programme

Liebherr is one of the world's biggest construction machine manufacturers and provides high-quality, user-oriented products and services. Its product programme includes earthmoving machinery, material handling technology, deep foundation machines, 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.

Customised solutions and maximum customer value

Liebherr solutions are characterised by precision, implementation and longevity. The company is committed to technological excellence and to providing customers with solutions that match their needs exactly. For Liebherr, customer focus does not end with delivery of a product but continues through a comprehensive range of back-up and support services.

www.liebherr.com

Liebherr-France SAS

2 avenue Joseph Rey, B.P. 90287 • 68005 Colmar Cedex, France • Phone +33 389 213030
info.lfr@liebherr.com • www.liebherr.com • www.facebook.com/LiebherrConstruction