

Technical data



Diesel engine

Rating	
per SAE J1349	536 HP (400 kW) at 1,700 rpm
per ISO 9249	543 HP (400 kW) at 1,700 rpm
Model	Liebherr D9508
Type	8 cylinder V-engine
Bore / Stroke	5.0 / 6.2 in
Displacement	986.1 in³
Engine operation	4-stroke diesel Common-Rail Turbo-charged and after-cooled Reduced emissions
Air cleaner	Dry-type air cleaner with pre-cleaner, primary and safety elements
Engine idling	Sensor controlled
Electrical system	
Voltage	24 V
Batteries	4 x 180 Ah / 12 V
Alternator	Three-phase current 28 V / 180 A
Stage V	
Harmful emissions values	According to regulation (EU) 2016/1628
Emission control	Liebherr-SCR Filter technology
Fuel tank	750 gal
Urea tank	48 gal
Stage IIIA (compliant)	
Harmful emissions values	In accordance with ECE-R.96 Power Band H
Fuel tank	750 gal
Tier 4 Final	
Harmful emissions values	In accordance with 40CFR1039 (EPA) / 13CCR (CARB)
Emission control	Liebherr-SCR Filter technology
Fuel tank	750 gal
Urea tank	48 gal



Electric motor

Rating	400 kW at 1,700 rpm
Model	Liebherr KGF1391
Type	Three-phase squirrel cage motor
Secondary electric motor	Electric motor auxiliary equipment (air-conditioning compressor, alternator 24 V) 15 kW
Electrical system energy supply	Liebherr drive components and control cabinets for uppercarriage and undercarriage Liebherr frequency converter fed drive system Heavy-duty version
Manufacturer	Liebherr
Supply voltage	
Low voltage	380–690 V
High voltage	2.14–20 kV
Frequency	50 / 60 Hz
Engine idling	Sensor controlled
Electrical system	Battery-assisted Control system, lighting, diagnostics system
Voltage	24 V
Batteries	2 x 180 Ah / 12 V
Alternator	Three-phase current 28 V / 140 A

Deviating parameters of the power supply system must always be clarified with Liebherr-Hydraulikbagger GmbH.



Cooling system

Diesel engine	Water-cooled Cooling system, consisting of a cooling unit for water and charge air and a 2 nd cooler for hydraulic oil, each with an infinitely variable, thermostatically controlled fan drive system
Electric motor	Air-cooled Cooling system for hydraulic oil with an infinitely variable, thermostatically controlled fan drive system Frequency converter water-cooled



Hydraulic controls

Power distribution	Via control valves with integrated safety valves, simultaneous actuation of chassis and equipment. Swing drive in separate closed circuit
Servo circuit	
Equipment and swing	With electro-hydraulic pilot control and proportional joystick levers
Chassis	with electro-hydraulic pilot control and an additional proportional joystick lever
Additional functions	
Proportional control	Proportionally acting transmitters on the joysticks for additional hydraulic functions



Hydraulic system

Hydraulic pump	
For equipment and travel drive	4 Liebherr axial piston variable displacement pumps
Max. flow	4 x 73 gpm
Max. pressure	5,076 psi
For swing drive	Reversible axial piston variable displacement pump, closed-loop circuit
Max. flow	120 gpm
Max. pressure	3,771 psi
Hydraulic pump regulation and control	Positive Control multi-circuit hydraulic system for independent and demand controlled dosing via the hydraulic pumps; sensor-controlled
Hydraulic tank	227 gal
Hydraulic system	436–449 gal (depending on undercarriage version)
Filtration	3 main return filters with integrated partial micro filtration (5 µm), 1 high pressure filter for each main pump 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 material handling and heavy-duty jobs
MODE selection	Mode for precision work and lifting through very sensitive movements
S (Sensitive)	Mode for precision work and lifting through very sensitive movements
E (Eco)	Mode for especially economical and environmentally friendly 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 continuous operation



Swing drive

Drive	Liebherr axial piston motor in a closed system, Liebherr planetary reduction gear
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0–5.5 rpm stepless
Swing torque	191,766 lbf ft
Holding brake	Wet multi-disc (spring applied, pressure released)
Operation holding brake	Slewing gear brake Comfort



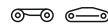
Cab

Cab	Spacious operator cabin with profiled design, excellent view on working area, access from behind, fixed front, roof and base panel made of bullet proof glass, front screen with electrical heating, shock-absorbing suspension, sound damping insulating, sliding window on left side, sun shadings, folding seat for instructor
Operator's seat Comfort	Air cushioned operator's seat with 3D-adjustable arm-rests, headrest, lap belt, seat heater, adjustable seat cushion inclination and length, lockable horizontal suspension, automatic weight adjustment, 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), pneumatic low frequency suspension and active seat climatization with active coal and ventilator
Arm consoles	Joysticks with control consoles and swivel seat
Operation and displays	Large high-resolution operating unit, self-explanatory, color display with touchscreen, video-compatible, numerous setting, control and monitoring options, e.g. air conditioning control, fuel consumption respectively energy consumption, machine and attachment parameters
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
Diesel engine	In addition to diesel engine: stationary air conditioning function with external climate condenser - controlled by a weekly timer
Electric motor	



Equipment

Type	High-strength steel plates at highly-stressed points for the toughest requirements. Complex and stable mountings of equipment and cylinders
Hydraulic cylinders	Liebherr cylinders with special sealing and guide system and, depending on cylinder type, shock absorption
Energy recovering cylinder	Liebherr gas cylinder with special sealing and control system
Bearings	Sealed, low maintenance



Undercarriage

Mobile	
Versions	Standard, High Rise, Gantry
Drive	One axle drive per drive axle with Liebherr axial piston motor and functional brake valve on both sides
Travel speed	0-4.8 mph stepless
Joystick steering	0-2.6 mph stepless (creeper speed)
Axles	Wheelsets with suspended 88,185 lb axles, with slewing drive rotating around the vertical axis, hydraulic cylinder for leveling
Position of wheelsets	8 steering axles, 2 powered and braked, for leveling and axle load distribution, interconnected by hydraulic
Steering programs	Front wheel, rear wheel and all-wheel steering, move to the side in crab steering possible, turning on the spot
Service brake	Two circuit travel brake system with accumulator
Holding brake	Wet multi-disc (spring applied, pressure released)
Stabilization	X-shaped 4 point support with 4 folding arms, one vertically positioned support cylinder per folding arm, support plates with ball-and-socket joint, removable
Crawler	
Versions	SW, High Rise, Gantry
Drive	Liebherr compact planetary reduction gear with Liebherr axial piston motor per side of undercarriage
Travel speed	0-2.4 mph stepless
Brake	Functional brake valves on both sides
Holding brake	Wet multi-disc (spring applied, pressure released)
Track pads	Flat
Tracks	Sealed and greased
Rail-mounted Gantry	
Chassis	Rail travel drive designed for the respective load per undercarriage corner
Drive	Compact planetary reduction gear with axial piston motor per rail travel drive
Brake	Functional brake valves on both sides
Holding brake	Per rail travel drive wet multi-disc (spring applied, pressure released)
Storm brakes (Option)	Different designs



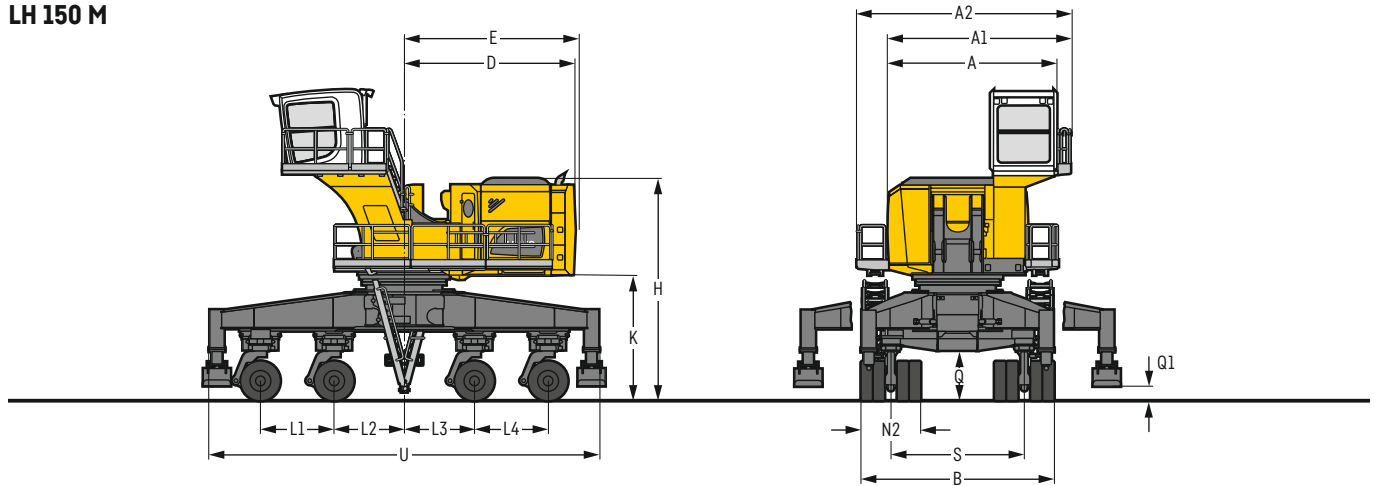
Complete machine

Lubrication	Liebherr central lubrication system for uppercarriage and equipment, automatically
Mobile (Option)	Liebherr central lubrication system for undercarriage, automatically
Steps system	Safe and durable access system with anti-slip steps; main components hot-galvanized
Noise emission	
ISO 6396 (Stage V)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Stage V)	108 dB(A) = L _{WA} (surround noise)
ISO 6396 (Stage IIIA compliant)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Stage IIIA compliant)	109 dB(A) = L _{WA} (surround noise)
ISO 6396 (Tier 4 Final)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Tier 4 Final)	108 dB(A) = L _{WA} (surround noise)
ISO 6396 (Electric)	71 dB(A) = L _{PA} (inside cab)
2000/14/EC (Electric)	108 dB(A) = L _{WA} (surround noise)

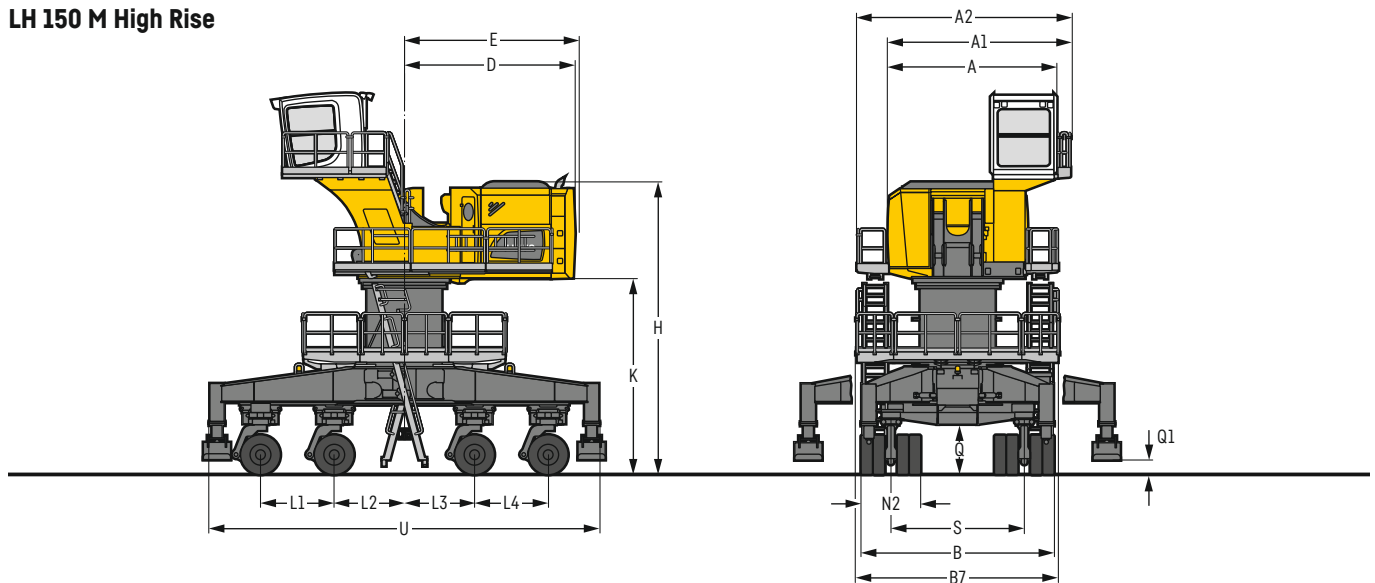
LH 150 M / LH 150 M High Rise – Dimensions

Industry

LH 150 M



LH 150 M High Rise



LH 150 M

	Cab elevation LFC 250	Cab elevation LFC 350	Cab elevation LHC-D 1090 T
A	15'9"	15' 9"	15'10"
A1	17'3"	17' 3"	17' 4"
A2	20'2"	20' 2"	20' 3"
B		18' 1"	
D		15'11"	
E		16' 4"	
H		20' 9"	
K		11' 8"	
L1		6'11"	
L2		6' 7"	
L3		6' 7"	
L4		6'11"	
N2		5' 7"	
Q		4' 8"	
Q1		1' 4"	
S		12' 6"	
U		36' 6"	

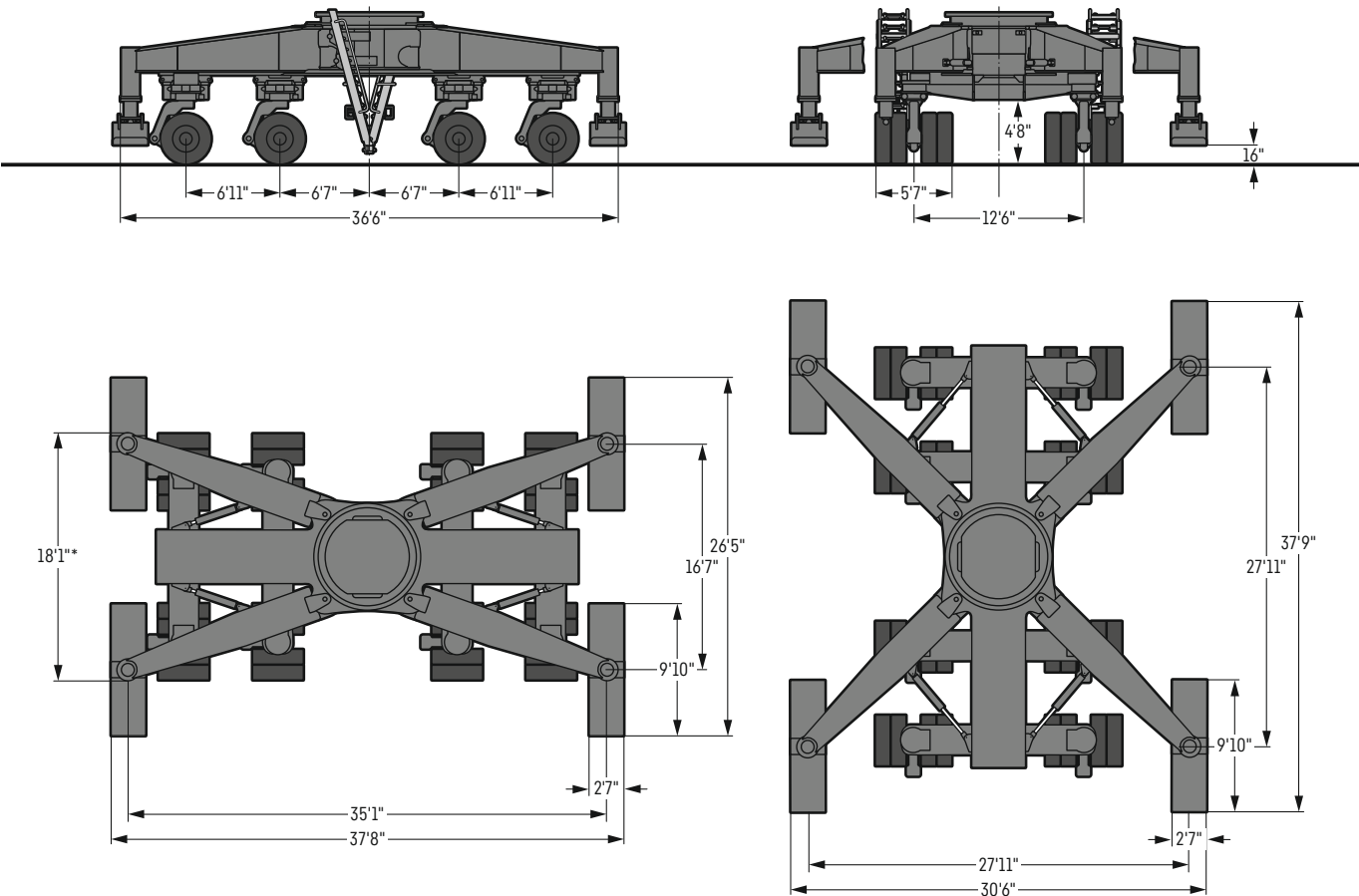
LH 150 M High Rise

	Cab elevation LFC 250	Cab elevation LFC 350	Cab elevation LHC-D 1090 T
A	15'9"	15' 9"	15'10"
A1	17'3"	17' 3"	17' 4"
A2	20'2"	20' 2"	20' 3"
B		18' 1"	
B7		19'	
D		15'11"	
E		16' 4"	
H		27' 4"	
K		18' 3"	
L1		6'11"	
L2		6' 7"	
L3		6' 7"	
L4		6'11"	
N2		5' 7"	
Q		4' 8"	
Q1		1' 4"	
S		12' 6"	
U		36' 6"	

Tires 11.00-20

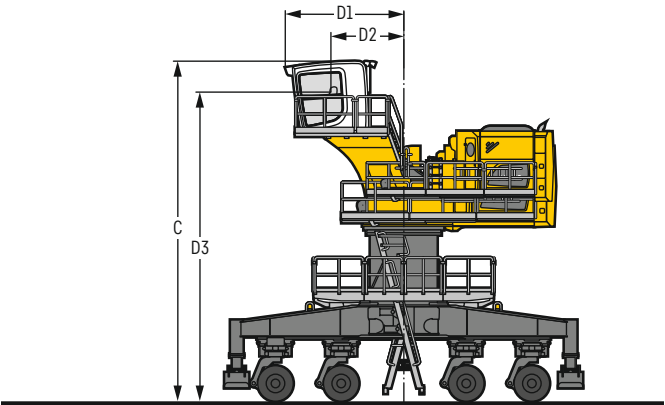
LH 150 M – Dimensions Undercarriage

Industry



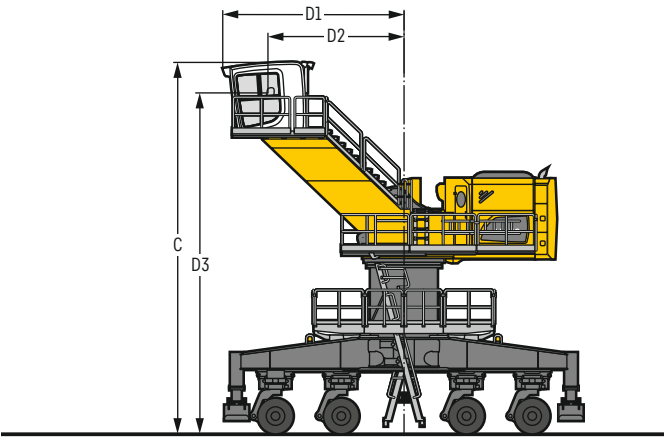
* with removed support plates

Choice of cab elevation



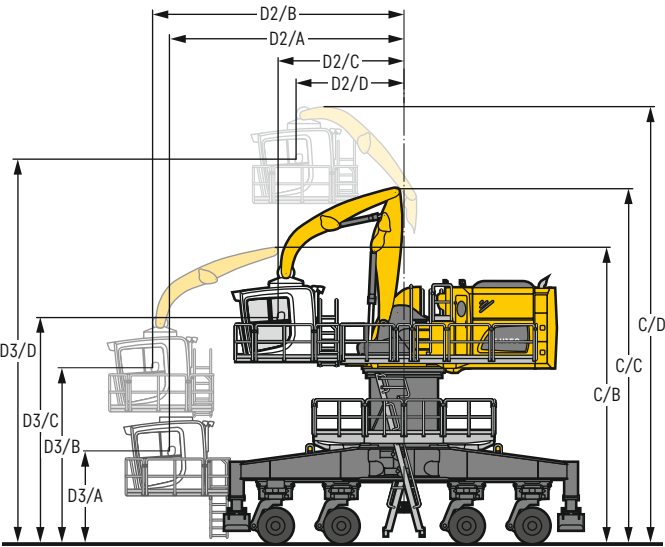
Cab elevation LFC 250
(rigid elevation 8'2")

	LH 150 M	LH 150 M High Rise	LH 150 M Gantry	LH 150 C	LH 150 C High Rise	LH 150 C Gantry
C	29'1"	35'8"	41'8"	23'10"	30'5"	41'8"
D1	12'4"	12'4"	12'4"	12' 4"	12'4"	12'4"
D2	7'8"	7'8"	7'8"	7' 8"	7'8"	7'8"
D3	25'9"	32'4"	38'4"	20' 6"	27'1"	38'4"



Cab elevation LFC 350
(rigid elevation 11'6")

	LH 150 M	LH 150 M High Rise	LH 150 M Gantry	LH 150 C	LH 150 C High Rise	LH 150 C Gantry
C	32' 5"	38'11"	45'	27' 2"	33' 8"	44'11"
D1	18'11"	18'11"	18'11"	18'11"	18'11"	18'11"
D2	14' 3"	14' 3"	14' 3"	14' 3"	14' 3"	14' 3"
D3	29' 1"	35' 8"	41' 7"	23' 9"	30' 4"	41' 7"

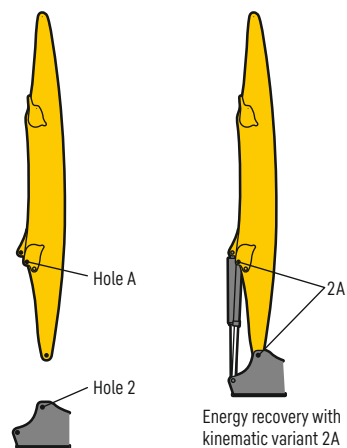


Cab elevation LHC-D 1090 T
(hydraulic elevation)

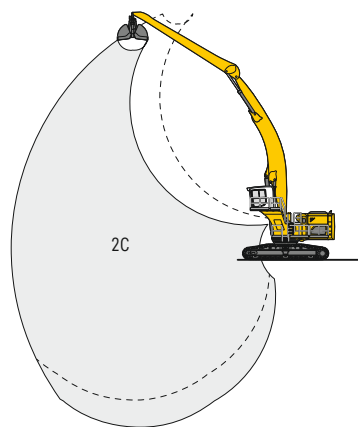
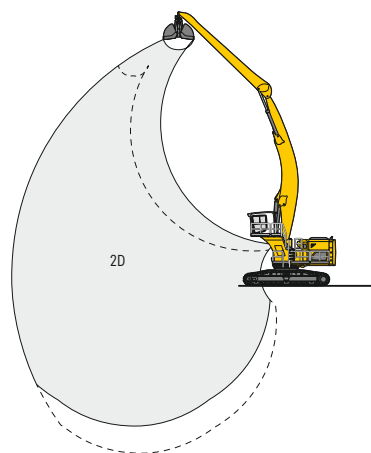
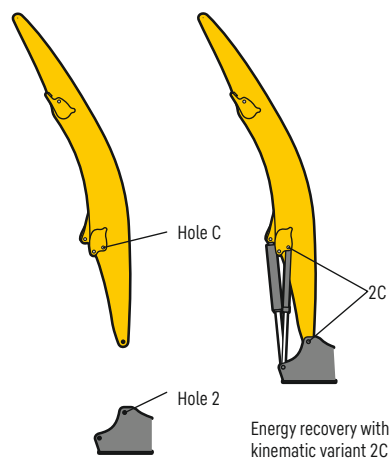
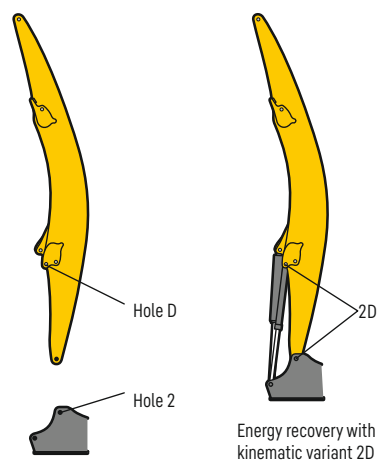
	LH 150 M	LH 150 M High Rise	LH 150 M Gantry	LH 150 C High Rise	LH 150 C Gantry
C/B	24'4"	30'11"	37'	25' 8"	36'11"
C/C	30'6"	37' 1"	43' 1"	31'10"	43' 1"
C/D	39'1"	45' 8"	51' 9"	40' 5"	51' 8"
D2/A	25'9"	25' 9"	21'10"	26' 1"	21'10"
D2/B	26'4"	26' 4"	26' 4"	26' 4"	26' 4"
D2/C	13'2"	13' 2"	13' 1"	13' 1"	13' 1"
D2/D	11'3"	11' 3"	11' 4"	11' 4"	11' 4"
D3/A	6'7"	9' 7"	10' 6"	9' 7"	10' 6"
D3/B	11'9"	18' 4"	24' 4"	13' 1"	24' 4"
D3/C	17'1"	23' 8"	29' 8"	18' 5"	29' 8"
D3/D	33'7"	40' 2"	46' 3"	34'11"	46' 3"

The hydraulically adjustable cab elevation allows the operator to choose his field of view freely and at any time within the stroke.

Kinematic variant 2A



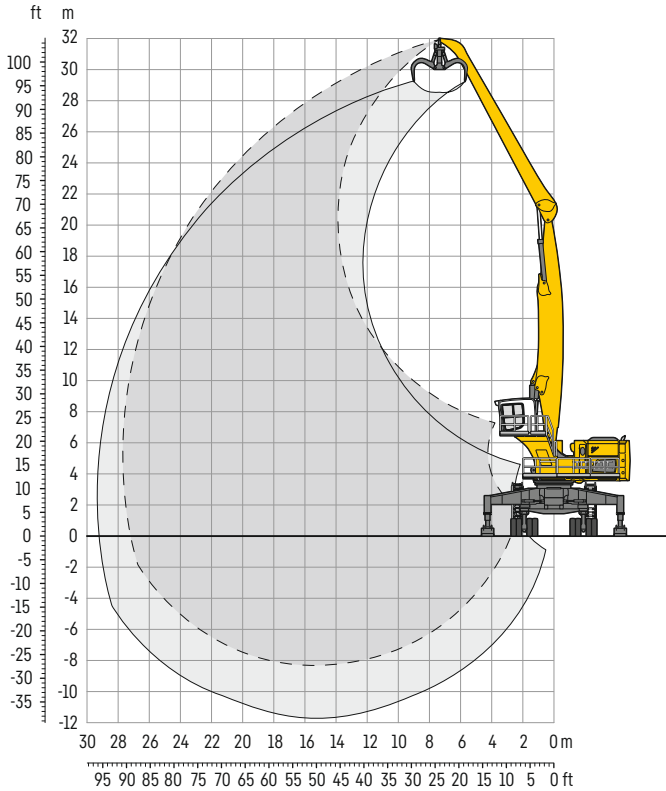
Kinematic variant 2D / 2C



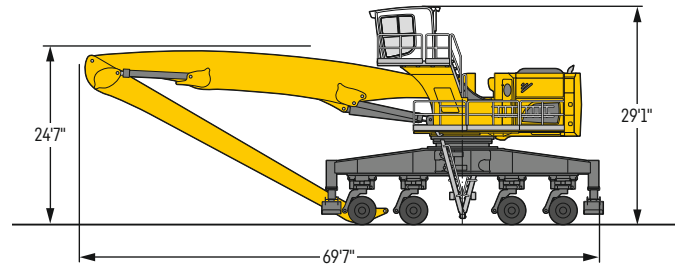
Altered range curve with additional reach depth, e.g. for unloading from ships

LH 150 M – Equipment GA28

Industry – Kinematic 2A



Dimensions



Operating weight

The operating weight includes the basic machine with 4 point outriggers, rigid cab elevation, 32 solid tires, straight boom 49'3", angled stick 44'3" and multi-tine grab GMM 120-5 / 3.92 yd³ semi-closed tines.

Weight 326,700 lb

		20 ft	25 ft	30 ft	35 ft	40 ft	45 ft	50 ft	55 ft	60 ft	65 ft	70 ft	75 ft	80 ft	85 ft	90 ft	
ft	Undercarriage																ft in
105	4 pt. outr. down		32.8° 32.8°														31.9° 31.9° 25'10"
100	4 pt. outr. down				29.0° 29.0°												24.8° 24.8° 39' 1"
95	4 pt. outr. down					29.3° 29.3°	25.1° 25.1°										21.4° 21.4° 48' 4"
90	4 pt. outr. down					31.8° 31.8°	29.0° 29.0°	25.3° 25.3°	20.0° 20.0°								19.3° 19.3° 55' 6"
85	4 pt. outr. down						31.1° 31.1°	28.5° 28.5°	25.0° 25.0°								17.9° 17.9° 61' 6"
80	4 pt. outr. down						32.5° 32.5°	29.9° 29.9°	27.0° 27.0°	24.3° 24.3°	19.1° 19.1°						16.8° 16.8° 66' 7"
75	4 pt. outr. down						33.3° 33.3°	29.8° 29.8°	26.9° 26.9°	24.5° 24.5°	22.4° 22.4°	17.5° 17.5°					16.1° 16.1° 70'11"
70	4 pt. outr. down							29.7° 29.7°	26.8° 26.8°	24.4° 24.4°	22.3° 22.3°	20.5° 20.5°					15.5° 15.5° 74' 8"
65	4 pt. outr. down							29.6° 29.6°	26.8° 26.8°	24.3° 24.3°	22.2° 22.2°	20.4° 20.4°	18.8° 18.8°				15.0° 15.0° 77'11"
60	4 pt. outr. down							33.1° 33.1°	29.6° 29.6°	26.7° 26.7°	24.3° 24.3°	22.2° 22.2°	20.4° 20.4°	18.7° 18.7°			14.7° 14.7° 80' 8"
55	4 pt. outr. down							33.1° 33.1°	29.6° 29.6°	26.7° 26.7°	24.3° 24.3°	22.2° 22.2°	20.3° 20.3°	18.7° 18.7°	17.2° 17.2°		14.5° 14.5° 83' 1"
50	4 pt. outr. down							33.2° 33.2°	29.7° 29.7°	26.8° 26.8°	24.3° 24.3°	22.2° 22.2°	20.3° 20.3°	18.7° 18.7°	17.2° 17.2°	14.7° 14.7°	14.3° 14.3° 85' 2"
45	4 pt. outr. down					37.8° 37.8°	33.4° 33.4°	29.8° 29.8°	26.8° 26.8°	24.3° 24.3°	22.2° 22.2°	20.3° 20.3°	18.6° 18.6°	17.1° 17.1°	15.6° 15.6°		14.2° 14.2° 86'11"
40	4 pt. outr. down					38.1° 38.1°	33.6° 33.6°	29.9° 29.9°	26.9° 26.9°	24.4° 24.4°	22.2° 22.2°	20.3° 20.3°	18.6° 18.6°	17.1° 17.1°	15.6° 15.6°		14.2° 14.2° 88' 4"
35	4 pt. outr. down					38.4° 38.4°	33.7° 33.7°	30.0° 30.0°	27.0° 27.0°	24.4° 24.4°	22.2° 22.2°	20.3° 20.3°	18.6° 18.6°	17.0° 17.0°	15.5° 15.5°		13.9° 13.9° 89' 5"
30	4 pt. outr. down							30.1° 30.1°	27.0° 27.0°	24.4° 24.4°	22.2° 22.2°	20.2° 20.2°	18.5° 18.5°	16.9° 16.9°	15.3° 15.3°	13.5° 13.5°	13.4° 13.4° 90' 2"
25	4 pt. outr. down	50.9° 50.9°	59.8° 59.8°	53.4° 53.4°	45.1° 45.1°	38.9° 38.9°	34.1° 34.1°	30.2° 30.2°	27.1° 27.1°	24.4° 24.4°	22.2° 22.2°	20.2° 20.2°	18.4° 18.4°	16.8° 16.8°	15.1° 15.1°	13.2° 13.2°	12.9° 12.9° 90' 8"
20	4 pt. outr. down	84.1° 84.1°	65.9° 65.9°	53.9° 53.9°	45.5° 45.5°	39.1° 39.1°	34.2° 34.2°	30.3° 30.3°	27.1° 27.1°	24.4° 24.4°	22.1° 22.1°	20.1° 20.1°	18.3° 18.3°	16.6° 16.6°	14.9° 14.9°	12.8° 12.8°	12.3° 12.3° 90'11"
15	4 pt. outr. down	35.7° 35.7°	66.5° 66.5°	54.3° 54.3°	45.7° 45.7°	39.3° 39.3°	34.3° 34.3°	30.3° 30.3°	27.1° 27.1°	24.3° 24.3°	22.0° 22.0°	19.9° 19.9°	18.1° 18.1°	16.3° 16.3°	14.5° 14.5°	12.2° 12.2°	11.6° 11.6° 90'10"
10	4 pt. outr. down	18.2° 18.2°	44.3° 44.3°	54.3° 54.3°	45.7° 45.7°	39.2° 39.2°	34.2° 34.2°	30.2° 30.2°	26.9° 26.9°	24.2° 24.2°	21.8° 21.8°	19.7° 19.7°	17.7° 17.7°	15.9° 15.9°	13.9° 13.9°	11.3° 11.3°	10.9° 10.9° 90' 6"
5	4 pt. outr. down	15.0° 15.0°	29.7° 29.7°	53.8° 53.8°	45.4° 45.4°	39.0° 39.0°	34.0° 34.0°	30.0° 30.0°	26.7° 26.7°	23.9° 23.9°	21.4° 21.4°	19.3° 19.3°	17.3° 17.3°	15.3° 15.3°	13.1° 13.1°		10.0° 10.0° 89'11"
0	4 pt. outr. down	14.9° 14.9°	25.5° 25.5°	45.0° 45.0°	44.5° 44.5°	38.3° 38.3°	33.4° 33.4°	29.5° 29.5°	26.2° 26.2°	23.4° 23.4°	20.9° 20.9°	18.7° 18.7°	16.6° 16.6°	14.4° 14.4°	11.9° 11.9°		9.0° 9.0° 89'
-5	4 pt. outr. down	16.1° 16.1°	24.7° 24.7°	39.2° 39.2°	43.0° 43.0°	37.2° 37.2°	32.5° 32.5°	28.6° 28.6°	25.4° 25.4°	22.6° 22.6°	20.1° 20.1°	17.8° 17.8°	15.5° 15.5°	13.2° 13.2°	10.2° 10.2°		7.8° 7.8° 87'10"
-10	4 pt. outr. down	17.8° 17.8°	25.2° 25.2°	37.1° 37.1°	40.6° 40.6°	35.3° 35.3°	31.0° 31.0°	27.3° 27.3°	24.2° 24.2°	21.4° 21.4°	18.9° 18.9°	16.5° 16.5°	14.1° 14.1°	11.4° 11.4°			8.3° 8.3° 84' 5"
-15	4 pt. outr. down		26.5° 26.5°	37.0° 37.0°	37.0° 37.0°	32.6° 32.6°	28.7° 28.7°	25.4° 25.4°	22.4° 22.4°	19.7° 19.7°	17.1° 17.1°	14.6° 14.6°	12.0° 12.0°				9.0° 9.0° 79' 8"
-20	4 pt. outr. down			35.6° 35.6°	32.1° 32.1°	28.7° 28.7°	25.5° 25.5°	22.6° 22.6°	19.8° 19.8°	17.3° 17.3°	14.7° 14.7°	12.1° 12.1°					10.3° 10.3° 73' 11"
-25	4 pt. outr. down					23.6° 23.6°	21.2° 21.2°	18.8° 18.8°	16.4° 16.4°	13.9° 13.9°							13.1° 13.1° 61' 6"

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

The lift capacities on the stick end without attachment are stated in lb x 1,000 and are valid on a firm, level supporting surface with blocked oscillating axle. These capacities can be slewed through 360° with the undercarriage in the transverse position. Capacities in the longitudinal position of the undercarriage (±15°) are specified over the rigid axle with the stabilizers down. Indicated loads based on the ISO 10567 standard and do not exceed 75% of tipping or 87% of hydraulic capacity. The lift capacity values indicated are attained at the corresponding operating temperature. This operating temperature is ensured by continuous movement of the boom. Weights of fitted attachments (grabs, load hooks, etc.) and load accommodation attachment are to be deducted from the lift capacity values. The lift capacity of the unit is limited by its stability, the lifting capability of the hydraulic elements, or the maximum permissible lifting capacity of the load hook.

Liebherr ERC-System

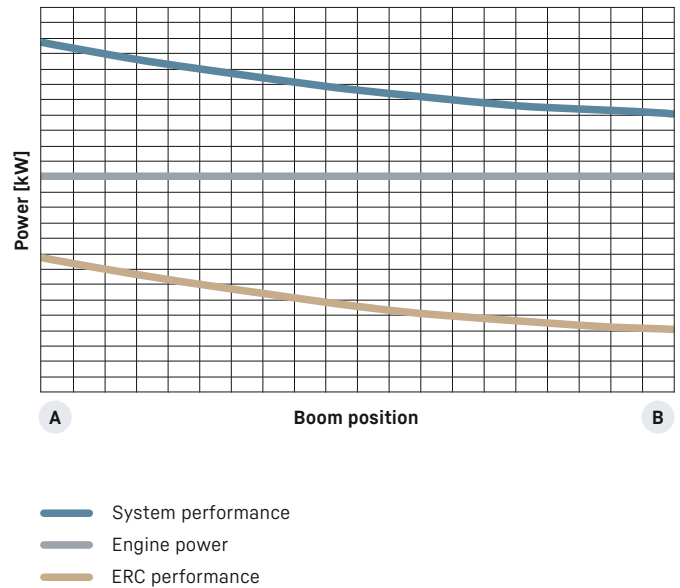
More performance, less consumption

Lowering the equipment stores energy in the ERC-System. This stored energy is then made available to the machine to provide additional engine power. When the equipment is raised the stored energy is released and is reflected in powerful, homogeneous operating cycles. The result is a clear energy saving – and, at the same time, even greater performance.

System performance

The energy recovery cylinder is a storage system which is independent of the electric motor or diesel engine. The system performance of material handling machines fitted with the ERC-System is composed of the installed engine power and the energy recovery cylinder. When the equipment is raised, energy from the ERC-System is supplied in addition to the power from the engine.

ERC-System



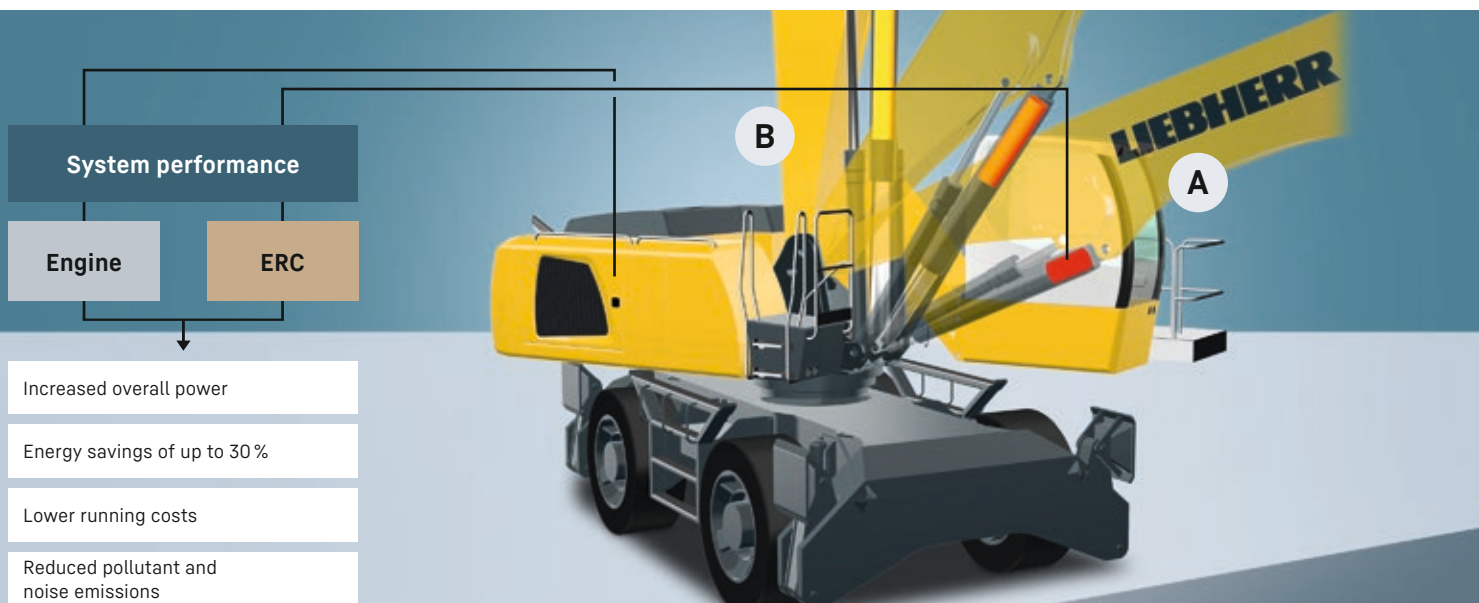
- B** 1. Equipment fitting raised / energy released



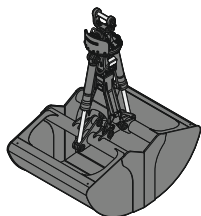
2. Lower equipment fitting / store energy
4. Raise equipment fitting / release energy



- A** 3. Equipment fitting lowered / energy stored



Attachments



Clamshell grab

Grab model GMZ 50 (Shells for loose material)													
Shell width	ft in	4'7"	5'3"	5'11"									
Capacity ¹⁾	yd ³	4.58	5.23	5.88									
Weight ²⁾	lb	5,765	6,063	6,228									
Grab model GMZ 80 (Clamshell buckets)													
Shell width	ft in	3'11"	4'7"	5'5"	6'7"								
Capacity ¹⁾	yd ³	1.83	2.22	2.62	3.27								
Weight ^{2) 3)}	lb	4,784	5,016	5,324	5,721								
Grab model GMZ 80 (Shells for loose material)													
Shell specification		Standard							Wide				
Shell width	ft in	4'3"	4'11"	5'9"	6'7"	7'3"	8'6"	9'10"	4'3"	4'11"	5'9"	6'7"	7'3"
Capacity ¹⁾	yd ³	3.92	4.58	5.23	5.88	6.54	7.85	9.15	2.62	3.01	3.53	3.92	4.45
Weight ²⁾	lb	5,534	5,787	6,118	6,437	7,176	7,694	8,201	5,093	5,291	5,589	5,886	6,382
Grab model GMZ 120 (Clamshell buckets)													
Shell width	ft in	6'7"											
Capacity ¹⁾	yd ³	4.18											
Weight ^{2) 3)}	lb	7,077											
Grab model GMZ 120 (Shells for loose material)													
Shell width	ft in	5'3"	5'11"	6'7"	7'3"	7'10"	9'2"	10'6"					
Capacity ¹⁾	yd ³	5.23	5.88	6.54	7.19	7.85	9.15	10.46					
Weight ²⁾	lb	6,625	6,923	7,231	8,003	8,322	8,907	9,546					
Grab model GMZ 120 (Shells for light material)													
Shell width	ft in	7'10"	9'2"										
Capacity ¹⁾	yd ³	13.08	15.69										
Weight ²⁾	lb	9,513	10,196										
Grab model GMZ 180 (Clamshell buckets)													
Shell width	ft in	4'11"											
Capacity ¹⁾	yd ³	2.62											
Weight ⁴⁾	lb	16,138											
Grab model GMZ 180B (Special shells)													
Shell width	ft in	6'7"											
Capacity ¹⁾	yd ³	3.92											
Weight ²⁾	lb	13,470											
Grab model GMZ 180B (Shells for loose material)													
Shell width	ft in	10'6"											
Capacity ¹⁾	yd ³	20.92											
Weight ²⁾	lb	18,563											



Multi-tine grab

Multi-tine grab	open				semi-closed				closed, heart-shaped			
Grab model GMM 80-4 (4 tines)												
Capacity	yd ³	1.44	1.83	2.22	1.44	1.83	2.22		1.83	2.22		
Weight ⁽²⁾	lb	4,189	4,277	4,409	4,619	4,740	4,872		5,302	5,644		
Grab model GMM 80-5 (5 tines)												
Capacity	yd ³	1.44	1.83	2.22	1.18	1.44	1.83	2.22	1.18	1.44	1.83	2.22
Weight ⁽²⁾	lb	4,784	4,894	5,049	4,993	5,269	5,434	5,589	5,236	5,379	5,688	6,019
Grab model GMM 120-4 (4 tines)												
Capacity	yd ³	2.22	2.62	3.27	3.92	2.22	2.62	3.27	3.92			
Weight ⁽²⁾	lb	4,751	4,850	4,971	5,082	5,269	5,390	5,589	5,787			
Grab model GMM 120-5 (5 tines)												
Capacity	yd ³	2.22	2.62	3.27	3.92	2.22	2.62	3.27	3.92	2.22	2.62	3.27
Weight ⁽²⁾	lb	5,478	5,600	5,754	5,886	6,085	6,239	6,471	6,724	6,548	6,856	7,198
												8,091

¹⁾ capacity specifications are theoretically determined values; fill level varies depending on the material being loaded

²⁾ weights with XHD suspension

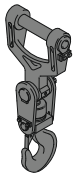
³⁾ weights incl. teeth

⁴⁾ weight with special suspension



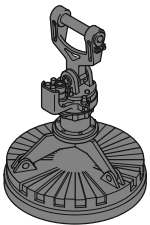
Wood grab

Grab model GMH 50 (Tong round overlapping)								
Size	yd ²	2.63	2.99	2.99	3.35	3.83	4.31	
Cutting width	ft in	3'3"	2'10"	3'3"	3'3"	3'3"	3'3"	
Height of grab, closed	ft in	7'7"	7'11"	7'11"	8'3"	8'8"	9'3"	
Weight ¹⁾	lb	4,575	4,475	4,663	4,828	4,938	5,049	
Grab model GMH 50 (Tong combi-shaped, tip-to-tip closing)								
Size	yd ²	2.99	3.83	3.83	4.31	4.31	4.54 ²⁾	4.54
Cutting width	ft in	2'10"	2'10"	3'3"	2'10"	3'3"	2'10"	3'3"
Height of grab, closed	ft in	8'4"	9'1"	9'1"	9'5"	9'5"	9'7"	9'9"
Weight ¹⁾	lb	4,839	5,104	5,302	5,236	5,445	5,236	5,412
Grab model GMH 50 (Tong heart-shaped, tip-to-tip closing, straight design)								
Size	yd ²	2.39	2.39	2.63 ³⁾	2.63	2.99	3.35	3.83
Cutting width	ft in	2'10"	3'3"	2'10"	3'3"	3'3"	3'3"	2'10"
Height of grab, closed	ft in	8'3"	8'3"	8'7"	8'7"	9'	9'4"	9'10"
Weight ¹⁾	lb	4,475	4,652	4,740	4,751	4,927	5,038	5,170
Grab model GMH 80 (Tong round overlapping)								
Size	yd ²	1.55	1.91	2.27	2.63	2.99		
Cutting width	ft in	2'10"	2'10"	2'10"	2'10"	2'10"		
Height of grab, closed	ft in	9'2"	9'6"	9'9"	10'1"	10'4"		
Weight ¹⁾	lb	4,663	4,762	4,850	4,916	5,004		
Grab model GMH 100 (Tong combi-shaped, tip-to-tip closing)								
Size	yd ²	4.07	4.43	4.78				
Cutting width	ft in	3'7"	3'7"	3'7"				
Height of grab, closed	ft in	9'10"	10'3"	10'8"				
Weight ¹⁾	lb	5,798	5,975	6,063				
Grab model GMH 100 (Tong heart-shaped, tip-to-tip closing, straight design)								
Size	yd ²	4.43						
Cutting width	ft in	2'9"						
Height of grab, closed	ft in	11'						
Weight ¹⁾	lb	5,501						
Grab model GMH 120 (Tong round overlapping)								
Size	yd ²	3.35	3.83	4.31				
Cutting width	ft in	2'10"	2'10"	2'10"				
Height of grab, closed	ft in	11'9"	12'1"	12'4"				
Weight ¹⁾	lb	6,008	6,063	6,151				
Grab model GMH 120 (Tong straight design, overlapping, two over one grab)								
Size	yd ²	1.67						
Cutting width	ft in	2'10"						
Height of grab, closed	ft in	9'8"						
Weight ¹⁾	lb	5,622						



Load hook

Max. load	lb	55,116
Weight	lb	562

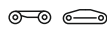


Magnet devices / lifting magnets

Generator	kW	30
Electromagnet with suspension		
Power	kW	22
Diameter of magnet	ft in	6'3"
Weight	lb	11,220 ⁴⁾

- ¹⁾ weights with XHD suspension
²⁾ tongs especially for truck unloading
³⁾ closed back sheet
⁴⁾ only magnet plate

Equipment



Undercarriage

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
8 steering axles, 2 powered and braked			•	•	
Support plates, variants			+	+	
Axle load monitoring			•	•	
Track pads, variants	+	+			+
Individual control outriggers			•	•	
Three-piece chain guide	•	•			•
Outrigger monitoring system			•	•	
Tires, variants			+	+	
Warning beacons			•	•	
Headlights on undercarriage, LED, 2 pieces			•	•	•



Uppercarriage

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Refuelling system, variants	+	+	+	+	+
Generator	+	+	+	+	+
Main battery switch for electrical system	•	•	•	•	•
Engine hood, hydraulic operable	•	•	•	•	•
Walk-in engine bay	•	•	•	•	•
Amber beacon, at uppercarriage, LED double flash	+	+	+	+	+
Side hood on the right, hydraulic operable	•	•	•	•	•
Tool equipment, extended	•	•	•	•	•



Hydraulic system

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Shut-off valve between hydraulic tank and pump(s)	•	•	•	•	•
Pressure test fittings	•	•	•	•	•
Accumulator for controlled lowering of the equipment with the engine shut down	•	•	•	•	•
Electronic pump regulation	•	•	•	•	•
Hydraulic oil filter with integrated microfilter	•	•	•	•	•
Liebherr hydraulic oil from -4 °F to +104 °F	•	•	•	•	•
Liebherr hydraulic oil, biologically degradable	+	+	+	+	+
Liebherr hydraulic oil, specially for warm or cold regions	+	+	+	+	+
Magnetic rod in hydraulic tank	•	•	•	•	•
Bypass filter	+	+	+	+	+
Preheating hydraulic oil	+	+	+	+	+



Engine

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Air pre-filter with dust discharge	+	+	+	+	+
Preheating fuel	+	+	+	+	+
Preheating coolant	+	+	+	+	+
Preheating engine oil	+	+	+	+	+



Cooling system

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Reversible fan drive	+	+	+	+	+



Cab

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Armrest adjustable	●	●	●	●	●
Circular bubble level	●	●	●	●	●
Driver profile, personalized (max. 5 drivers)	+	+	+	+	+
Operator's seat Comfort	●	●	●	●	●
Operator's seat Premium	+	+	+	+	+
Driving alarm (acoustic signal is emitted during travel, can not be switched ON / OFF)	+	+	+	+	+
Fire extinguisher	●	●	●	●	●
Cab elevation, hydraulic with double parallelogram (LHC-D)	+	+	+	+	+
Cab elevation, rigid (LFC)	●	●	●	●	●
Automatic air conditioning	●	●	●	●	●
Proportional control	●	●	●	●	●
Radio Comfort, control via display with handsfree set	+	+	+	+	+
Preparation for radio installation	●	●	●	●	●
Amber beacon, on cab, LED double flash	+	+	+	+	+
Windows made from impact-resistant laminated safety glass (front, roof and bottom window)	●	●	●	●	●
Headlights on cab, rear, LED, 2 pieces	●	●	●	●	●
Headlights on cab, front, LED, 2 pieces (under rain shield)	●	●	●	●	●
FOPS top guard	+	+	+	+	+
FGPS front guard	+	+	+	+	+
Auxiliary heating, adjustable (week time switch)	●	●	●	●	●
Flashing light (xenon)	+	+	+	+	+



Equipment

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Boom shutoff (retract / extend), electronically	●	●	●	●	●
AutoLift	+	+	+	+	+
Pressure warning mechanism hoist cylinder	●	●	●	●	●
ERC system	●	●	●	●	●
Boom cylinder cushioning	●	●	●	●	●
Stick camera (with separate monitor), bottom side, with protection	+	+	+	+	+
Load torque limitation	+	+	+	+	+
Liebherr multi coupling system	+	+	+	+	+
Pipe fracture safety valves hoist cylinders	●	●	●	●	●
Pipe fracture safety valves stick cylinders	●	●	●	●	●
Headlights on boom, LED, 2 pieces	●	●	●	●	●
Headlights on stick, LED, 4 pieces	●	●	●	●	●
Protection for piston rod, energy recovering cylinder	+	+	+	+	+
Protection for bottom side of stick	+	+	+	+	+
Stick shutoff (retract / extend), electronically	●	●	●	●	●
Retract stick without pressure	●	●	●	●	●
Sticks with quick coupling	+	+	+	+	+
Overload warning device	●	●	●	●	●



Complete machine

	150 C	150 C HR	150 M	150 M HR	150 C Gantry
Liebherr Connect					
MyLiebherr Maintenance	+	+	+	+	+
MyLiebherr Performance	+	+	+	+	+
MyLiebherr Portal ¹⁾	●	●	●	●	●
Special coating					
Special coating, variants	+	+	+	+	+
Monitoring					
Rear view monitoring with camera	●	●	●	●	●
Side view monitoring with camera	+	+	+	+	+

● = Standard, + = Option

¹⁾ free activation required

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.