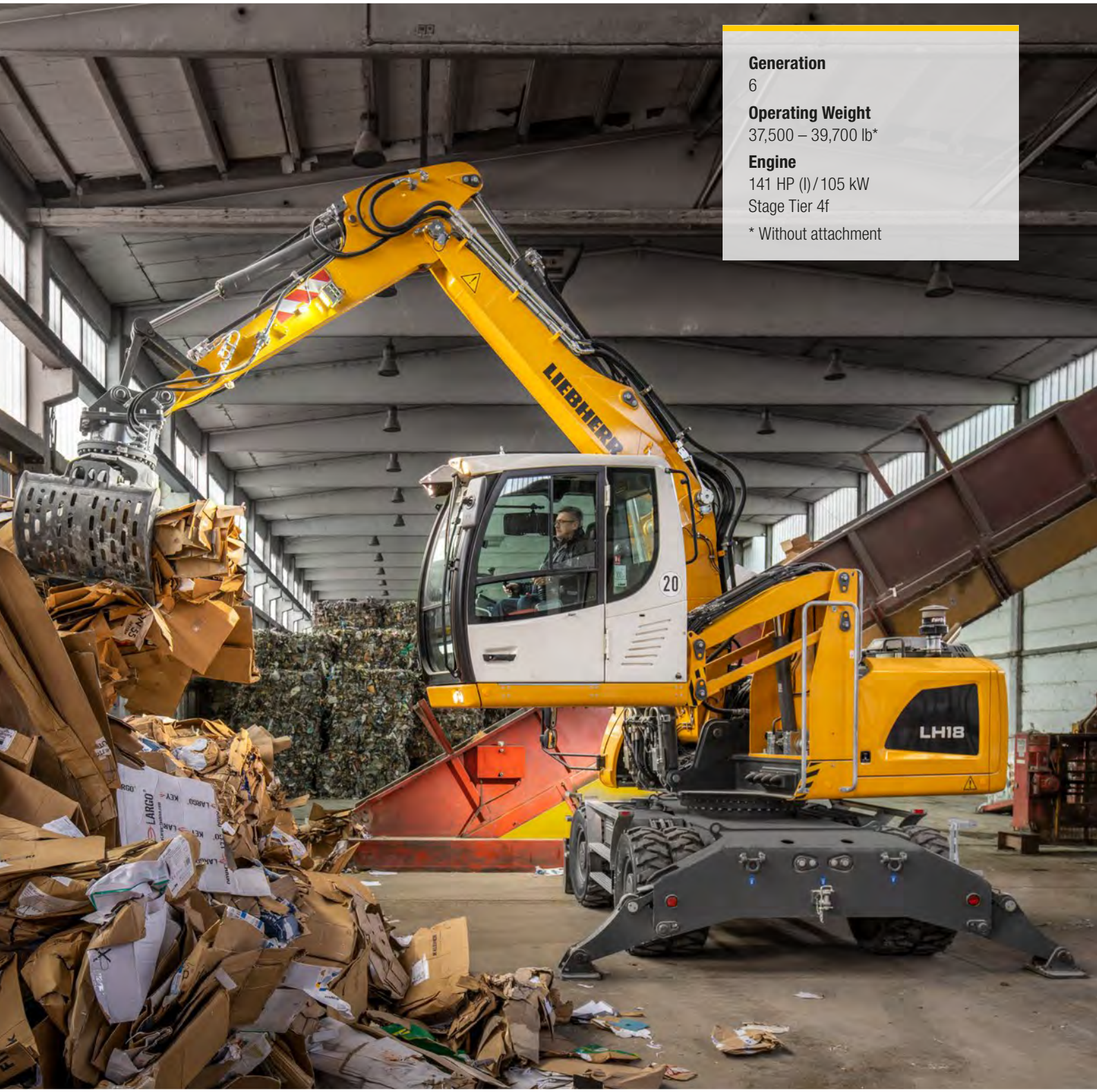
Product Information Material Handling Machine

LH 18 M Industry

Litronic®



Generation
6

Operating Weight
37,500 – 39,700 lb*

Engine
141 HP (I) / 105 kW
Stage Tier 4f

* Without attachment

LIEBHERR

Performance
Power Plus Speed –
Redefined Performance

Economy
Good Investment –
Savings for the Long-term

Operating Weight
37,500 – 39,700 lb*

Engine
141 HP (I) / 105 kW
Stage Tier 4f

* Without attachment

Reliability
Durability and Sustainability –
Quality Down to the Last Detail

Comfort
Perfection at a Glance –
When Technology is Comfortable

Maintainability
Efficiency Bonus –
Even with Maintenance and Service

Well Thought Out to the Last Detail

Extremely Dusty Jobs

- Reversible fan slows down the accumulation of dirt in the engine and radiator, guaranteeing high levels of machine availability
- Air pre-filter with dust discharge for extra-fine filtration of the engine intake air

Maintainability

- Stabilizer blade requires no maintenance
- All daily service points are accessible from the ground

Integral Travel Drive Protection

- Travel engine and gear unit are integrated in the robust undercarriage frame
- Robust design for toughest requirements

Convincing in Operation

Performance

Sensitive Hydraulics
The optimal harmonisation between the engine and the control valve allows a fast and direct response from the hydraulics to the input command. This is controlled proportionally to enable smooth and gentle movements to be executed when the joystick is moved.

Firm and Stable Positioning
An essential prerequisite for precise working and maximum handling capacity is the firm and stable positioning of the machine. The design of the Liebherr undercarriage optimises the way forces are induced on components to minimise stress and guarantee maximum stability and durability.

Economy

Sensor Controlled Low Idle Automatic
The time-tested standard sensor controlled low idle automatic reduces the engine speed to idling level as soon as the operator takes his hand off the joystick which means that no hydraulic functions are activated. In addition to saving energy, this also reduces noise.

Rapid Work Cycles
The intuitive machine controls guarantee that the hydraulics are optimally configured for the task at hand. Here, the load sensing control ensures that the flow delivered by the pump is optimally distributed when movements overlap. Speed and power are available whenever they are needed and thus ensures high handling capacity.

Road Licensing
The LH 18 M Industry with an adjustable boom package and the appropriate machine configuration can be issued with a road licence ex-works by the TÜV. This road licence enables it to work at the side of the road and to be driven to nearby places without the requirement for a special licence.

Reliability

Quality and Competence
Our experience, understanding of customer needs and the technical implementation of these findings guarantee the success of the product. For decades, Liebherr has been inspirational with its depth of production and system solutions. Key components such as the diesel engine and electric motors, electronic components, slew ring, slew drives and hydraulic cylinders are developed and produced by Liebherr itself. The extend of in-house manufacturing guarantees maximum quality and ensures that components are optimally configured to each other.

Robust Design
All steel components are designed and manufactured by Liebherr. High-strength steel plates configured for the toughest of requirements result in high torsional stiffness and optimum absorption of forces induced for a longer service life.

Working Area Limit
The handling machine can be fitted with an optional working area limit for jobs which require a limited working area. Every possible dimensional can be adjusted for this purpose – height, depth, reach and proximity. This can prevent collisions and the resulting component damage.

Requirement-Controlled Cooling
The vanes of the fan are driven regardless of the diesel engine, generating the exact cooling output that is actually required. Thermal sensors guarantee reliable, need-based and efficient control.

Comfort

Ergonomic
The latest cab design delivers excellent conditions for healthy, highly concentrated and productive work in maximum comfort. Both the display unit with touchscreen colour display, the controls and Comfort driver's seat are all coordinated to form a perfect ergonomic unit. In addition the ergonomic joysticks allow the machine operation to be both pleasant and precise.

Joystick Steering and Stabilizing
The standard joystick steering gives the operator an additional comfort boost. The steering movement can be conveniently executed using the joystick, eliminating the need to reposition during the work cycle. Substituting the steering wheel in favour of joystick steering provides additional legroom and a clear view of the working area. A new standard feature is Joystick control of the outriggers for more convenience and an increased productivity.

Proportional Control System
Precision and the fine control of the material handler are particularly important for applications such as material sorting or scrap recycling. The machine can master this demanding work with ease thanks to its standard proportional control system.

Maintainability

Service-based Machine Design
The service-based machine design guarantees short maintenance times, thus minimising maintenance costs due to the time it saves. All the maintenance points are easily accessible from the ground and easy to reach due to the large, wide-opening service doors. The enhanced service concept places the maintenance points close to each other and reduces their number to a minimum. This means that service work can be completed every more quickly and efficiently.

Integral Maintenance Benefits
The completion of maintenance work helps keep the machine fully functional. Maintenance work does, however, mean machine down times which must be minimised. Automatic central lubrication systems for the uppercarriage and equipment as well as optional systems for the undercarriage, rapid change systems and attachments not only make it easier to adhere to the prescribed lubrication intervals and ensure a long service life for the components, but also increase the productivity of the Liebherr LH 18 M Industry handling machine.

Technical Data

Diesel Engine

Rating per SAE J1349/ISO 9249	141 HP (I) (105 kW) at 1,800 rpm
Model	D924 – FPT motor designed for Liebherr
Type	4 cylinder in-line
Bore/Stroke	4.1/5.2 in
Displacement	274.61 in^3
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	2 x 135 Ah/12 V
Alternator	three-phase current 28 V/140 A
Stage Tier 4f	
Harmful emissions values	in accordance with EPA/CARB-40CFR stage Tier 4f
Emission control	Liebherr-SCR technology
Fuel tank	66 gal
Urea tank	12 gal

Cooling System

Diesel engine	water-cooled compact cooling system consisting cooling unit for water, hydraulic oil and charge air with step-less thermostatically controlled fan, fans for radiator cleaning can be completely folded away

Hydraulic Controls

Power distribution	via control valves with integrated safety valves, simultaneous and independent actuation of chassis, swing drive and equipment
Servo circuit	
Equipment and swing	with hydraulic pilot control and proportional joystick levers
Chassis	electro-proportional via foot pedal
Additional functions	via switch or electro-proportional foot pedals
Proportional control	proportionally acting transmitters on the joy-sticks for additional hydraulic functions

Hydraulic System

Hydraulic pump	
for equipment and travel drive	Liebherr axial piston variable displacement pump
Max. flow	66 gpm
Max. pressure	5,076 psi
Hydraulic pump regulation and control	Liebherr-Synchron-Comfort-system (LSC) with electronic engine speed sensing regulation, pressure and flow compensation, torque con-trolled swing drive priority
Hydraulic tank	34 gal
Hydraulic system	79 gal
Hydraulic oil filter	1 main return filter with integrated partial micro filtration (5 µm)
MODE selection	adjustment of engine and hydraulic performance via a mode pre-selector to match application, e.g. for especially economical and environmen-tally friendly operation or for maximum material handling and heavy-duty jobs
S (Sensitive)	mode for precision work and lifting through very sensitive movements
E (Eco)	mode for especially economical and environ-mentally friendly operation
P (Power)	mode for high performance with low fuel con-sumption
P+ (Power-Plus)	mode for highest performance and for very heavy duty applications, suitable for continuous operation
Engine speed and performance setting	stepless alignment of engine output and hydraulic power via engine speed
Option	Tool Control: 20 pre-adjustable pump flows and pressures for add-on attachments

Swing Drive

Drive	Liebherr axial piston motor with integrated brake valve and torque control
Swing ring	Liebherr, sealed race ball bearing swing ring, internal teeth
Swing speed	0 – 10.0 rpm stepless
Swing torque	39,828 lbf ft
Holding brake	wet multi-disc (spring applied, pressure released)
Option	slewing gear brake Comfort

Operator's Cab

Cab	TOPS safety cab structure (tip-over protection) with individual windscreens or featuring a slide-in subpart under the ceiling, work headlights integrated in the ceiling, a door with a sliding window (can be opened on both sides), large stowing and depositing possibilities, shock-absorbing suspension, sound damping insulating, tinted laminated safety glass, separate 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, adjustable seat cushion inclination and length, lockable horizontal suspension, automatic weight adjustment, adjustable suspension stiffness, pneumatic lumbar vertebrae support and passive seat climatisation with active coal
Operator's seat Premium (Option)	in addition to operator's seat comfort: active electronic weight adjustment (automatic re-adjustment), pneumatic low frequency suspension and active seat climatisation with active coal and ventilator
Control system	joysticks with control consoles and swivel seat, folding left control console
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, 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

Undercarriage

Drive	oversized two speed power shift transmission with additional creeper speed, Liebherr axial piston motor with functional brake valve on both sides
Travel speed	
Joystick steering	0 – 2.2 mph stepless (creeper speed + transmission stage 1) 0 – 4.3 mph stepless (transmission stage 1) 0 – 7.5 mph stepless (creeper speed + transmission stage 2) 0 – 7.5 mph stepless (transmission stage 2)
Wheel steering (Option)	0 – 2.2 mph stepless (creeper speed + transmission stage 1) 0 – 4.3 mph stepless (transmission stage 1) 0 – 8.1 mph stepless (creeper speed + transmission stage 2) 0 – 12.4 mph stepless (transmission stage 2)
Driving operation	automotive driving using accelerator pedal, cruise control function: storage of variable accelerator pedal positions
Axles	70,548 lb drive axles; manual or automatic hydraulically controlled front axle oscillation lock
Service brake	two circuit travel brake system with accumulator; wet and backlash-free disc brake
Holding brake	wet multi-disc (spring applied, pressure released)
Stabilization	stabilizing blade + 2 point outriggers

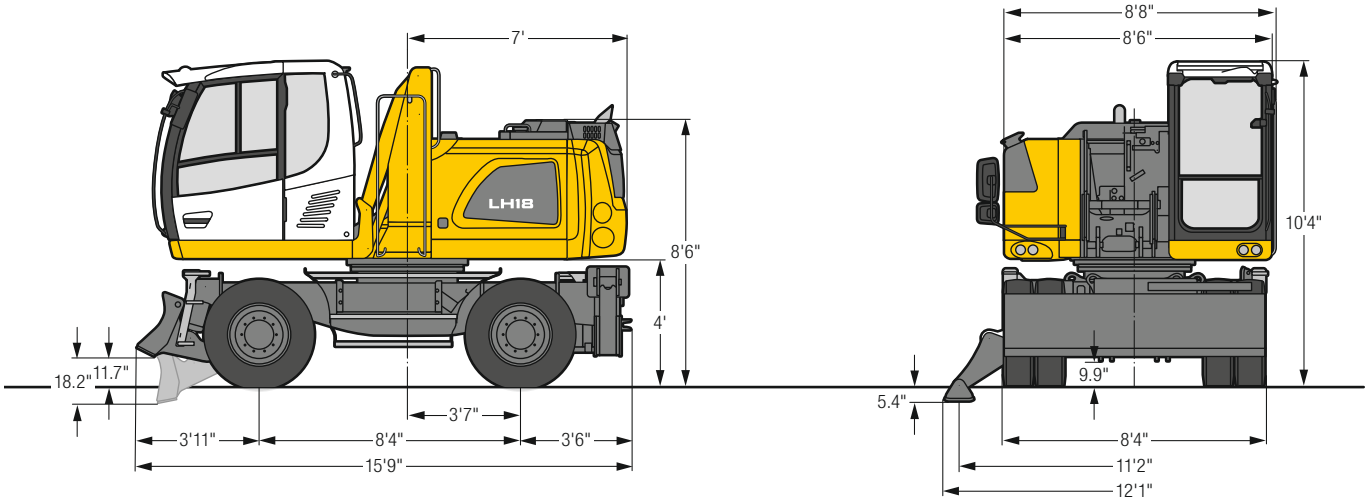
Equipment

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
Bearings	sealed, low maintenance

Complete Machine

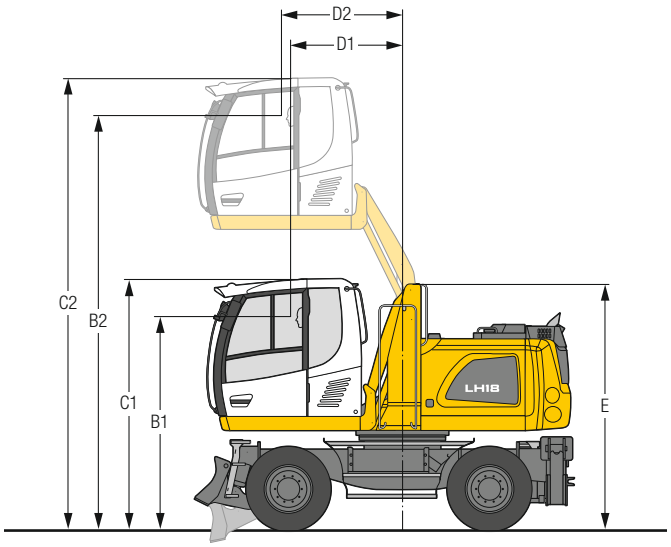
Lubrication	Liebherr central lubrication system for upper-carriage and equipment, automatically
Steps system	safe and durable access system with anti-slip steps; main components hot-galvanized
Noise emission	
ISO 6396	L_{pA} (inside cab) = not specified
2000/14/EC	L_{WA} (surround noise) = not specified

Dimensions



Choice of Cab Elevation

Cab Elevation LHC
(Hydraulic Elevation)

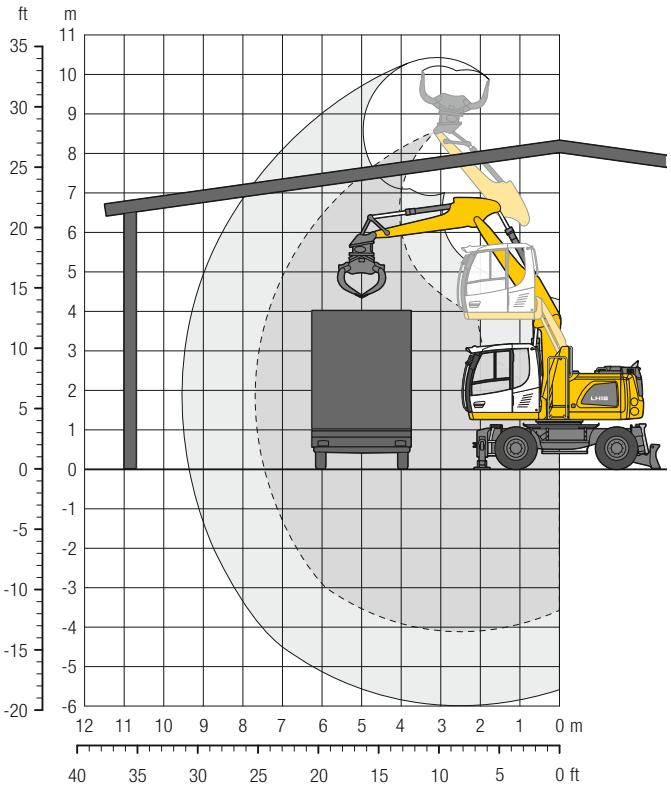


Increase type	LHC 255
B1	8'10"
B2	17' 2"
C1	10' 4"
C2	18' 8"
D1	4' 8"
D2	5'
E	10' 2"

The hydraulically adjustable cab allows the driver, that he can choose his field of view freely and at any time within the stroke.

Tires 10.00-20

Equipment VK8

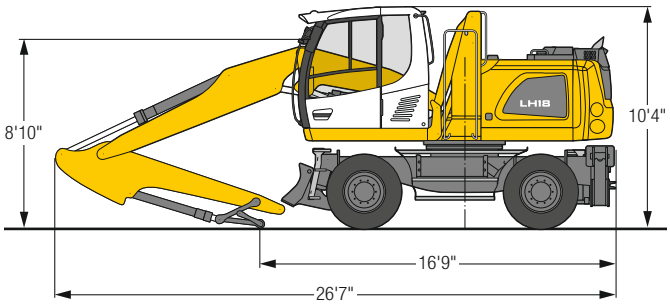


Operating Weight

The operating weight includes the basic machine with stabilizing blade + 2 point outriggers, hydr. cab elevation, 8 solid tires plus intermediate rings, two-piece boom 15'11", stick with tipping kinematics 8'8" and sorting grab SG 20B/0.52 yd³ perforated shells.

Weight	42,100 lb

Dimensions

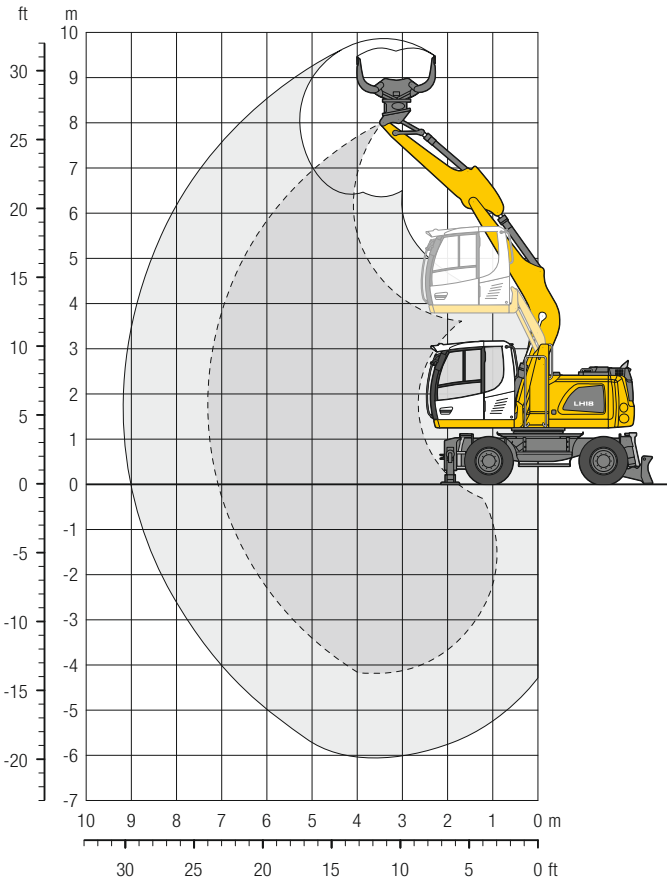


ft	Undercarriage	10 ft		15 ft		20 ft		25 ft				ft in
25	Stabilizers raised			6,1*	6,1*					5,2*	5,2*	15' 5"
	Blade + 2 pt. outriggers down			6,1*	6,1*					5,2*	5,2*	
20	Stabilizers raised			8,6*	8,6*	5,5*	5,5*			4,4*	4,4*	20' 6"
	Blade + 2 pt. outriggers down			8,6*	8,6*	5,5*	5,5*			4,4*	4,4*	
15	Stabilizers raised			9,2	10,0*	6,0	8,8*			4,1*	4,1*	23' 4"
	Blade + 2 pt. outriggers down			10,0*	10,0*	8,8*	8,8*			4,1*	4,1*	
10	Stabilizers raised	15,9	19,0*	9,0	12,4*	5,9	9,0			4,0	4,1*	24'10"
	Blade + 2 pt. outriggers down	19,0*	19,0*	12,4*	12,4*	9,4	9,7*			4,1*	4,1*	
5	Stabilizers raised	15,6	20,9*	8,9	13,3	5,8	9,0	3,8	5,2*	3,8	4,4*	25' 2"
	Blade + 2 pt. outriggers down	20,9*	20,9*	13,8	14,0*	9,3	10,3*	5,2*	5,2*	4,4*	4,4*	
0	Stabilizers raised	15,6	22,7*	8,7	13,4	5,5	8,7			3,9	4,9*	24' 6"
	Blade + 2 pt. outriggers down	22,7*	22,7*	13,9	14,4*	9,1	10,4*			4,9*	4,9*	
– 5	Stabilizers raised	14,8	23,4*	8,2	13,4	5,2	8,4			4,3	5,9*	22' 8"
	Blade + 2 pt. outriggers down	23,4*	23,4*	14,1	14,7*	8,9	10,1*			5,9*	5,9*	
–10	Stabilizers raised	14,4	23,0*	7,7	12,7*					5,4	6,1*	19' 2"
	Blade + 2 pt. outriggers down	23,0*	23,0*	12,7*	12,7*					6,1*	6,1*	

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 steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply with the optimum positioning of the two-piece boom. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity. 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.

Equipment MK7

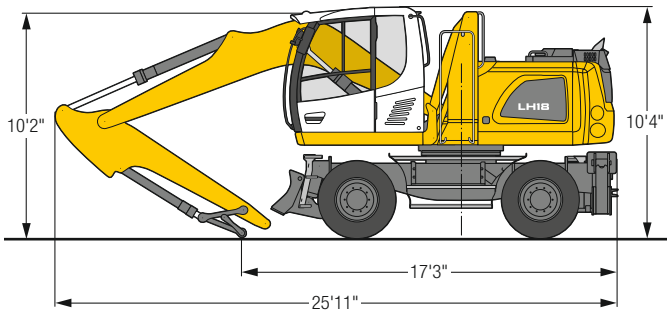


Operating Weight

The operating weight includes the basic machine with stabilizing blade + 2 point outriggers, hydr. cab elevation, 8 solid tires plus intermediate rings, mono boom 15'1", stick with tipping kinematics 8'8" and sorting grab SG 20B/0.52 yd³ perforated shells.

Weight	41,500 lb

Dimensions

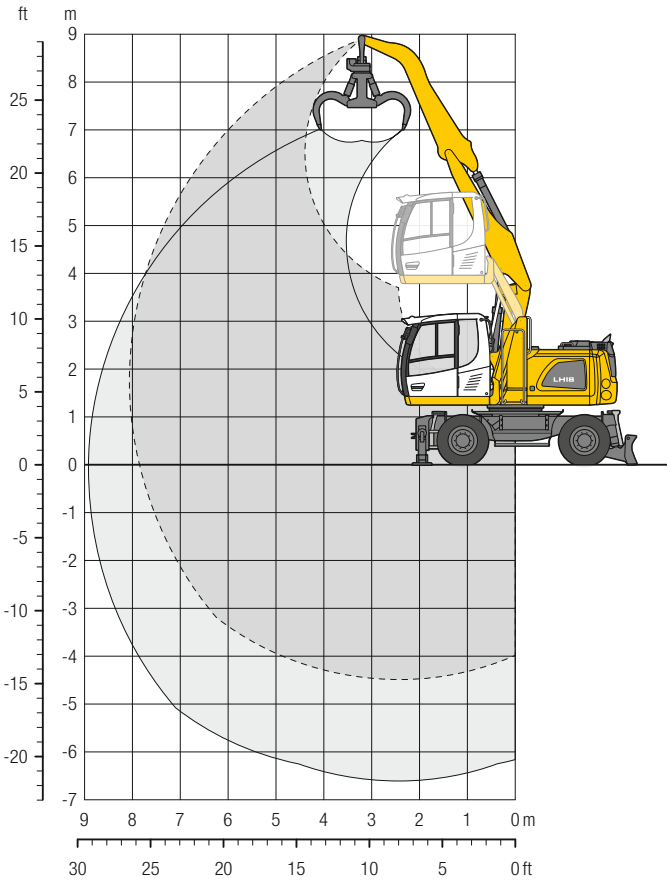


ft	Undercarriage	10 ft		15 ft		20 ft		25 ft				ft in
25	Stabilizers raised									5,2*	5,2*	13'4"
	Blade + 2 pt. outriggers down									5,2*	5,2*	
20	Stabilizers raised			7,6*	7,6*					4,3*	4,3*	19'
	Blade + 2 pt. outriggers down			7,6*	7,6*					4,3*	4,3*	
15	Stabilizers raised			8,4*	8,4*	5,8	7,5*			4,1*	4,1*	22'
	Blade + 2 pt. outriggers down			8,4*	8,4*	7,5*	7,5*			4,1*	4,1*	
10	Stabilizers raised	15,2*	15,2*	8,6	10,6*	5,6	8,8*			4,2*	4,2*	23'7"
	Blade + 2 pt. outriggers down	15,2*	15,2*	10,6*	10,6*	8,8*	8,8*			4,2*	4,2*	
5	Stabilizers raised	13,9	15,4*	8,0	13,0*	5,4	8,6			4,1	4,5*	24'
	Blade + 2 pt. outriggers down	15,4*	15,4*	13,0*	13,0*	9,0	9,8*			4,5*	4,5*	
0	Stabilizers raised	13,3	14,6*	7,6	12,7	5,2	8,4			4,2	5,2*	23'4"
	Blade + 2 pt. outriggers down	14,6*	14,6*	13,4	14,3*	8,8	10,4*			5,2*	5,2*	
– 5	Stabilizers raised	13,3	20,9*	7,4	12,6	5,1	8,3			4,7	6,7*	21'4"
	Blade + 2 pt. outriggers down	20,9*	20,9*	13,2	14,1*	8,7	10,0*			6,7*	6,7*	
–10	Stabilizers raised	13,5	17,6*	7,5	11,8*					6,1	9,3*	17'8"
	Blade + 2 pt. outriggers down	17,6*	17,6*	11,8*	11,8*					9,3*	9,3*	

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 steering axle with the stabilizers raised and 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 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.

Equipment VG8

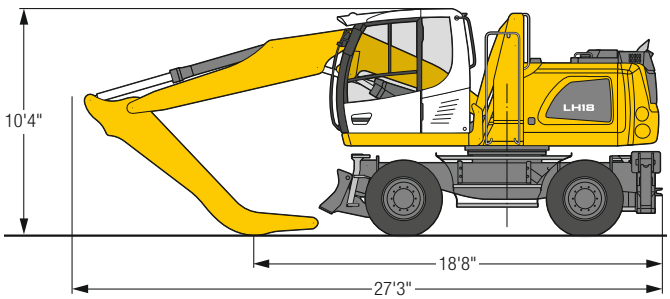


Operating Weight

The operating weight includes the basic machine with stabilizing blade + 2 point outriggers, hydr. cab elevation, 8 solid tires plus intermediate rings, two-piece boom 15'11", angled stick 9'10" and multi-tine grab GM 55B/0.52 yd³ semi-closed tines.

Weight	42,000 lb

Dimensions

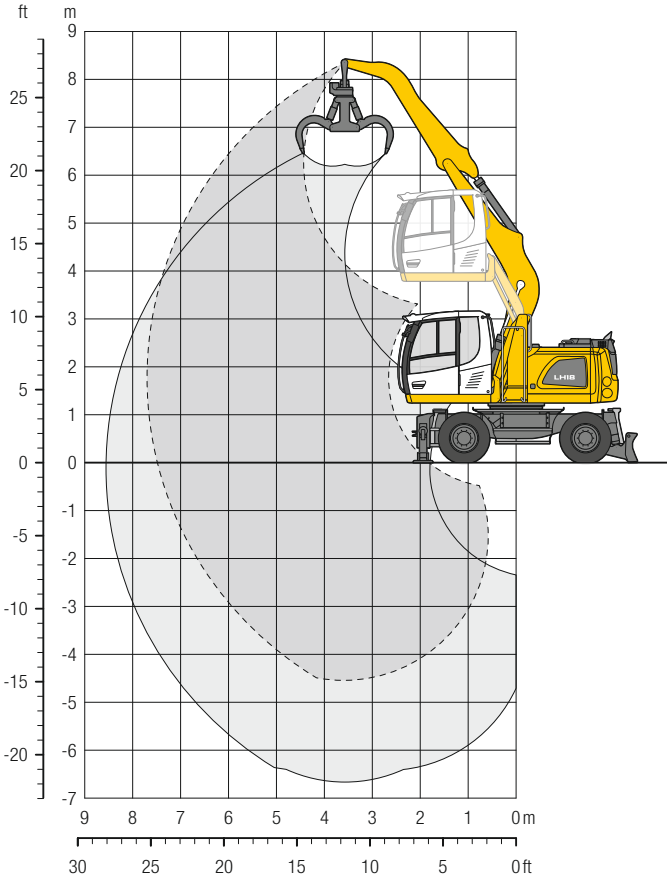


ft	Undercarriage	10 ft		15 ft		20 ft		25 ft				ft in
25	Stabilizers raised			7,7*	7,7*					5,2*	5,2*	17' 5"
	Blade + 2 pt. outriggers down			7,7*	7,7*					5,2*	5,2*	
20	Stabilizers raised			7,9*	7,9*	6,3	7,1*			4,5*	4,5*	22'
	Blade + 2 pt. outriggers down			7,9*	7,9*	7,1*	7,1*			4,5*	4,5*	
15	Stabilizers raised			8,6*	8,6*	6,4	8,5*			4,2*	4,2*	24' 8"
	Blade + 2 pt. outriggers down			8,6*	8,6*	8,5*	8,5*			4,2*	4,2*	
10	Stabilizers raised	16,4	18,0*	9,4	12,3*	6,4	9,4	4,4	6,7*	4,1	4,2*	26' 1"
	Blade + 2 pt. outriggers down	18,0*	18,0*	12,3*	12,3*	9,8	9,8*	6,7*	6,7*	4,2*	4,2*	
5	Stabilizers raised	16,0	21,1*	9,3	13,8	6,3	9,3	4,3	6,6	3,9	4,4*	26' 5"
	Blade + 2 pt. outriggers down	21,1*	21,1*	14,2*	14,2*	9,7	10,6*	6,9	8,0*	4,4*	4,4*	
0	Stabilizers raised	16,1	22,8*	9,2	13,8	6,0	9,2	4,2	6,5	4,0	4,8*	25'10"
	Blade + 2 pt. outriggers down	22,8*	22,8*	14,2	14,9*	9,6	10,8*	6,8	7,6*	4,8*	4,8*	
– 5	Stabilizers raised	15,4	23,8*	8,7	14,0	5,7	8,9			4,3	5,6*	24' 1"
	Blade + 2 pt. outriggers down	23,8*	23,8*	14,5	15,0*	9,3	10,9*			5,6*	5,6*	
–10	Stabilizers raised	15,0	24,5*	8,2	13,5	5,5	7,8*			5,2	6,3*	20'11"
	Blade + 2 pt. outriggers down	24,5*	24,5*	14,1	14,5*	7,8*	7,8*			6,3*	6,3*	

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 steering axle with the stabilizers raised and over the rigid axle with the stabilizers down. The values apply with the optimum positioning of the two-piece boom. Indicated loads based on the ISO 10567 standard and do not exceed 75 % of tipping or 87 % of hydraulic capacity. 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.

Equipment MG8



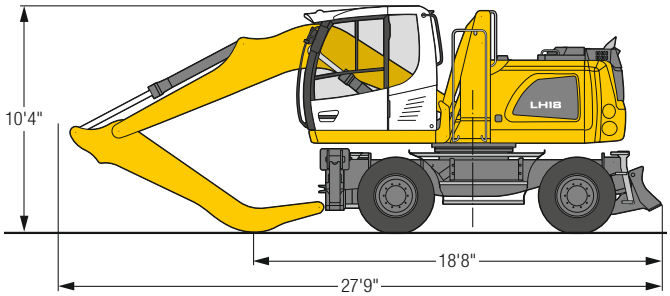
Operating Weight

The operating weight includes the basic machine with stabilizing blade + 2 point outriggers, hydr. cab elevation, 8 solid tires plus intermediate rings, mono boom 15'1", angled stick 9'10" and multi-tine grab GM 55B/0.52 yd³ semi-closed tines.

Weight	41,300 lb

Dimensions

Equipment over digging axle for transport



ft	Undercarriage	10 ft		15 ft		20 ft		25 ft				ft in
25	Stabilizers raised			5,9*	5,9*					5,1*	5,1*	15' 6"
	Blade + 2 pt. outriggers down			5,9*	5,9*					5,1*	5,1*	
20	Stabilizers raised			7,2*	7,2*	5,4*	5,4*			4,4*	4,4*	20' 6"
	Blade + 2 pt. outriggers down			7,2*	7,2*	5,4*	5,4*			4,4*	4,4*	
15	Stabilizers raised			8,1*	8,1*	6,3	7,9*			4,2*	4,2*	23' 5"
	Blade + 2 pt. outriggers down			8,1*	8,1*	7,9*	7,9*			4,2*	4,2*	
10	Stabilizers raised	13,8*	13,8*	9,1	10,3*	6,1	8,8*			4,2*	4,2*	24'11"
	Blade + 2 pt. outriggers down	13,8*	13,8*	10,3*	10,3*	8,8*	8,8*			4,2*	4,2*	
5	Stabilizers raised	14,8	19,8*	8,5	12,9*	5,8	9,0	4,3	5,2*	4,2	4,5*	25' 2"
	Blade + 2 pt. outriggers down	19,8*	19,8*	12,9*	12,9*	9,5	10,0*	5,2*	5,2*	4,5*	4,5*	
0	Stabilizers raised	14,0	14,6*	8,1	13,2	5,6	8,8			4,3	5,0*	24' 7"
	Blade + 2 pt. outriggers down	14,6*	14,6*	13,9	14,6*	9,2	10,8*			5,0*	5,0*	
– 5	Stabilizers raised	13,8	19,4*	7,9	13,0	5,5	8,7			4,7	6,1*	22' 8"
	Blade + 2 pt. outriggers down	19,4*	19,4*	13,6	14,8*	9,1	10,7*			6,1*	6,1*	
–10	Stabilizers raised	13,9	19,5*	7,9	13,0					5,7	8,7*	19' 5"
	Blade + 2 pt. outriggers down	19,5*	19,5*	13,1*	13,1*					8,7*	8,7*	

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 steering axle with the stabilizers raised and 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 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.

Machine Stabilities Sorting Grabs

LH 18 M – Max. Material Weight in lb/yd³

Grab	Shell type	Capacity	Direct mounting with mounting plate Blade + 2 pt. outriggers down		Mounting with SWA 48 Blade + 2 pt. outriggers down	
		yd³	VK8	MK7	VK8	MK7
SG 20B	perforated	0.52	3,371	3,708	2,191	2,528
SG 20B	perforated	0.65	2,528	2,865	1,517	1,854
SG 20B	perforated	0.78	1,854	2,191	1,180	1,348
SG 20B	perforated	0.92	1,517	1,686	843	1,180
SG 20B	closed	0.52	3,203	3,708	2,023	2,528
SG 20B	closed	0.65	2,360	2,697	1,517	1,854
SG 20B	closed	0.78	1,854	2,191	1,180	1,348
SG 20B	closed	0.92	1,517	1,686	843	1,011

Equipment

Undercarriage

Individual control outriggers	•
Shuttle axle lock, automatic	•
Outrigger monitoring system	+
Tires, variants	+
Protection for travel drive	•
Protection for piston rods, outriggers	+
Two lockable storage compartments	•
Undercarriage, variants	+

Uppercarriage

Uppercarriage right side light, 1 piece, LED	•
Uppercarriage rear light, 2 pieces, LED	+
Refuelling system with filling pump	+
Main battery switch for electrical system	•
Amber beacon, at uppercarriage, LED double flash	+
Protection for headlights	+
Protection for rear lights	+
Tool equipment, extended	+

Hydraulic System

Electronic pump regulation	•
Liebherr hydraulic oil from –4 °F to +104 °F	•
Liebherr hydraulic oil, biologically degradable	+
Magnetic rod in hydraulic tank	•
Bypass filter	+
Preheating hydraulic oil	+

Engine

Fuel anti-theft device	+
Air pre-filter with dust discharge	+
Automatic engine shut-down (time adjustable)	+
Preheating fuel	+
Preheating coolant*	+
Preheating engine oil*	+

Cooling System

Reversible fan drive, fully automatic	+
Protective grid in front of cooler intake	•

Operator's Cab

Stabilizer, control lever, left console	+
Stabilizer, proportional control on left joystick	•
Cab lights front, halogen	+
Cab lights front, halogen (under rain cover)	•
Cab lights front, LED	+
Cab lights front, LED (under rain cover)	+
Armrest adjustable	•
Slewing gear brake Comfort, button on the left or right joystick	+
Operator's seat Comfort	•
Operator's seat Premium	+
Driving alarm (acoustic signal is emitted during travel, can be switched ON/OFF)	+
Fire extinguisher	+
Footrest	+
Horn, button on left joystick	•
Joystick steering (max. 7.5 mph)	•
Cab elevation, hydraulic (LHC)	•
Cab elevation, hydraulic with tilt function (LHC)	+
Automatic air conditioning	•
Wheel steering (slim version)	+
LiDAT, vehicle fleet management	•
Proportional control	•
Radio Comfort, control via display with handsfree set	+
Preparation for radio installation	•
Back-up alarm (acoustic signal is emitted traveling backward, can not be switched off)	+
Amber beacon, on cabin, LED double flash	+
Windows made from impact-resistant laminated safety glass	+
Windscreen wiper, roof	+
Windshield wiper, entire windscreen	•
Top guard	+
Front guard, adjustable	+
Sun visor	+
Left control console, folding	•

Equipment

Boom lights, 2 pieces, halogen	•
Boom lights, 2 pieces, LED	+
Stick lights, 2 pieces, halogen	•
Stick lights, 2 pieces, LED	+
Height limitation and stick shutoff, electronically	+
Stick camera (with separate monitor), bottom side, with protection	+
Liebherr quick coupler, hydraulic	+
Pipe fracture safety valves hoist cylinders	•
Pipe fracture safety valves stick cylinders	•
Quick coupling system LIKUFIX	+
Overload warning device	+

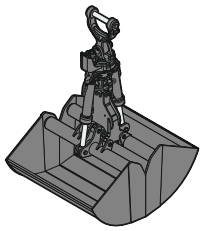
Complete Machine

Lubrication	
Lubrication undercarriage, manually – decentralized (grease points)	•
Lubrication undercarriage, manually – centralized (one grease point)	+
Central lubrication system for uppercarriage and equipment, automatically	•
Central lubrication system for undercarriage, automatically	+
Special coating	
Special coating, variants	+
Monitoring	
Rear view monitoring with camera	•
Side view monitoring with camera	•

• = Standard, + = Option
* = country-dependent

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

Attachments



Grab for Loose Material

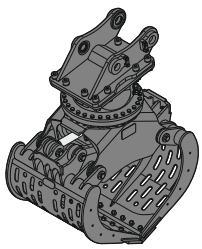
Shells for loose material with cutting edge (without teeth)

Grab model GM 10B			
Width of shells	ft in	3'3"	4'3"
Capacity	yd^3	1.31	1.70
Weight	lb	2,415	2,500

Multi-Tine Grab

Grab model GM 55B (5 tines)		**open**	**semi-closed**	**closed**
Capacity	yd^3	0.52	0.52	0.52*
Weight	lb	2,195	2,470	3,030

* heart-shaped



Sorting Grab

Grab model SG 20B		**perforated**	**closed**	**perforated**	**closed**	**perforated**	**closed**	**perforated**	**closed**
Width of shells	ft in	2'7"	2'7"	3'3"	3'3"	3'11"	3'11"	4'7"	4'7"
Capacity	yd^3	0.52	0.52	0.65	0.65	0.78	0.78	0.92	0.92
Max. closing force	lbf	8,992	8,992	8,992	8,992	8,992	8,992	8,992	8,992
Weight incl. adapter plate SWA	lb	2,095	2,125	2,195	2,225	2,295	2,315	2,390	2,415

Notes

The Liebherr Group of Companies

Diverse Product Range
The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's quality products and services hold a high reputation in many industries. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit
Every product line provides a complete range of models in many different versions. With both their technical excellence and superior quality, Liebherr products offer customers the highest benefits in practical applications.

State-of-the-art Technology
Liebherr attributes great importance to the product areas of core technology and components, in order to achieve its consistent, top-quality products. Important modules and components are developed and manufactured in-house, for instance, the entire drive and control technology for the construction equipment and mining trucks.

Worldwide and Family-Owned
Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with more than 48,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

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