

Material Handling Machine

LH 150 Port

Litronic®



Operating Weight:
286,600 – 485,000 lb

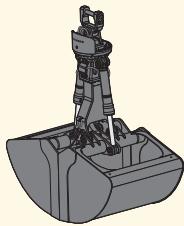
Engine:
536 HP / 400 kW (SAE J1349)
543 HP / 400 kW (ISO 9249)

Stage Tier 4f
Electro

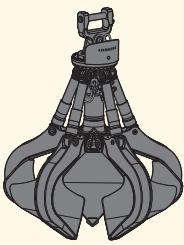
Max. System Performance:
614 kW

LIEBHERR

The Perfect Solution for Every Application



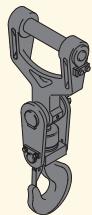
Shells for loose material



Multi-tine grab



Wood grab

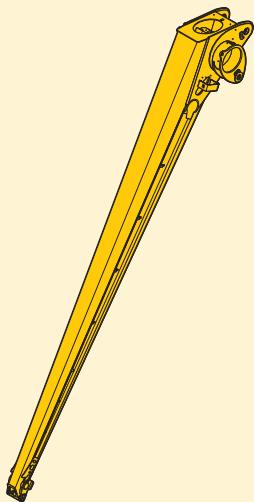


Load hook

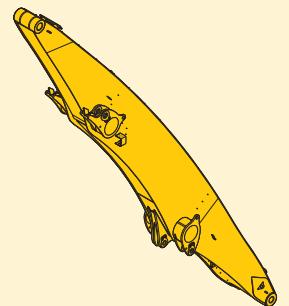


Magnet devices

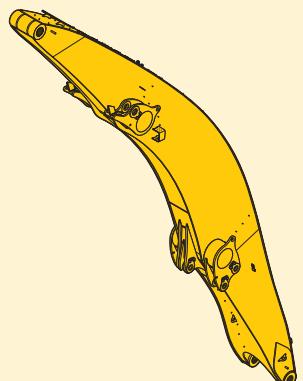
Working Tools



Straight stick



Straight boom

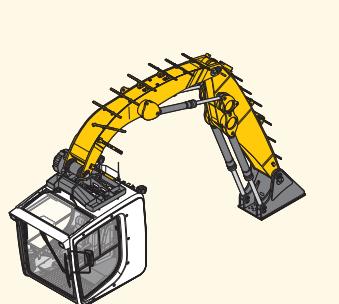


Angled boom

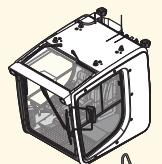
Stick

Booms

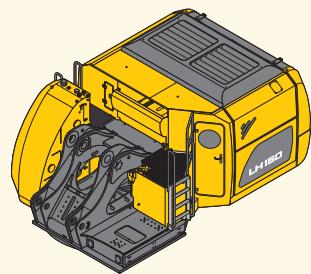
Cab Elevations



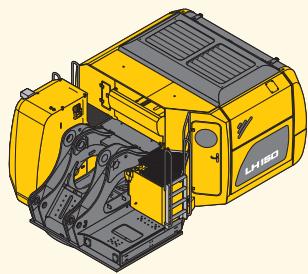
Hydraulic cab elevation



Rigid cab elevation



Diesel engine



Electric motor

Uppercarriage

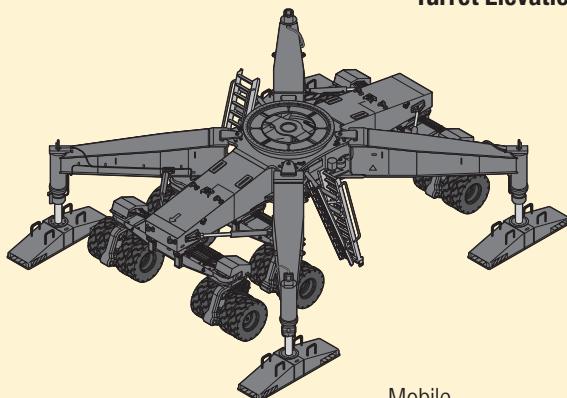


Turret 6'7"

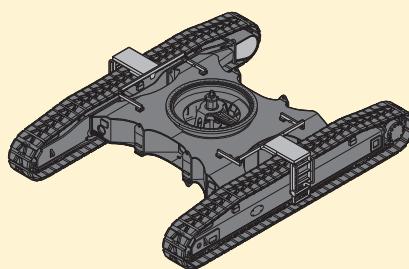


Turret 3'11"

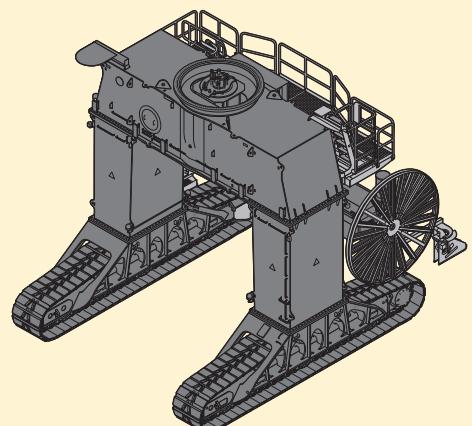
Turret Elevations



Mobile



Crawler



Gantry (Crawler and Rail-mounted)

Undercarriage

Technical Data

Diesel Engine

Rating	per SAE J1349 per ISO 9249	536 HP (400 kW) at 1,700 rpm 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 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 Batteries Alternator	24 V 4 x 180 Ah/12 V three-phase current 28 V/180 A
Stage Tier 4f	Harmful emissions values Emission control Fuel tank Urea tank	in accordance with EPA/CARB-40CFR stage Tier 4f Liebherr SCR technology 740 gal 48 gal

Electric Motor

Rating	543 HP (400 kW) at 1,700 rpm
Model	Liebherr KGF1391
Type	three-phase squirrel cage motor electric motor auxiliary equipment (air-conditioning compressor, alternator 24 V)
Electrical system energy supply	Liebherr control cabinets upercarriage and undercarriage with access protection, drive components heated and ventilated Liebherr frequency converter fed drive system heavy-duty version
Supply voltage	Low voltage High voltage Frequency
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

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

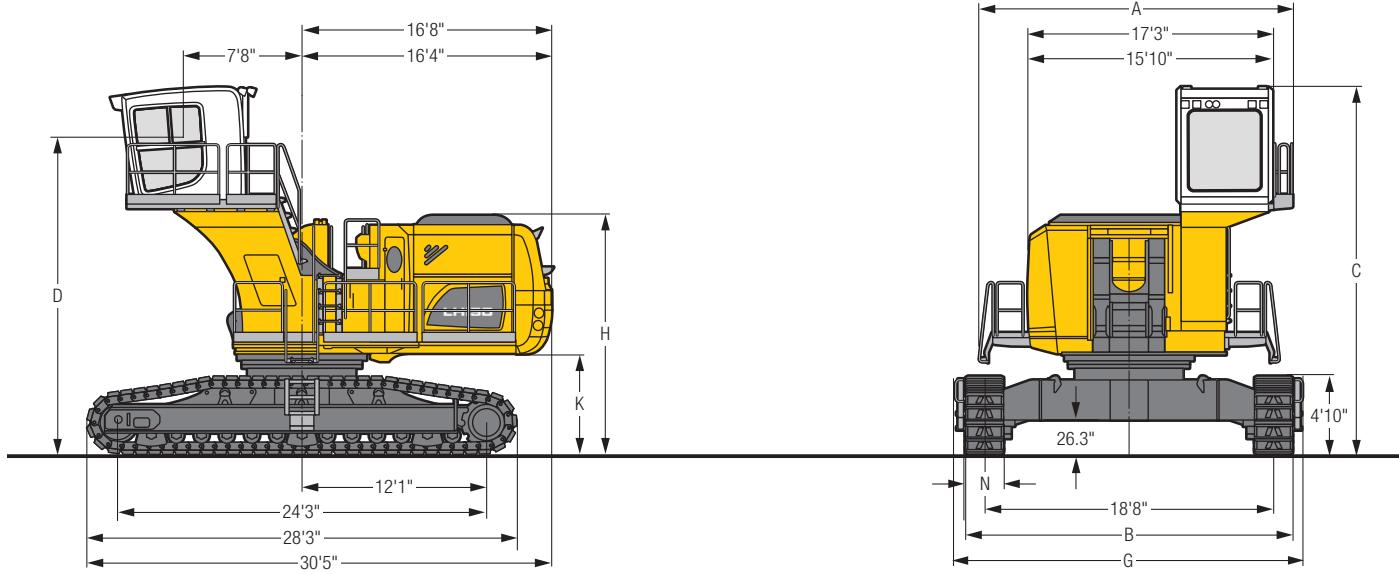
Power distribution	via control valves with integrated safety valves, simultaneous actuation of chassis and attachment. Swing drive separately in closed circuit
Servo circuit	Attachment and swing with electro-hydraulic pilot control and proportional joystick levers
Chassis	with electro-hydraulic pilot 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 attachment and travel drive Max. flow Max. pressure	4 Liebherr axial piston variable displacement pumps 4 x 73 gpm 5,076 psi
for swing drive	reversible axial piston variable displacement pump, closed-loop circuit Max. flow Max. pressure	120 gpm 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	328 gal	
Hydraulic system	489 – 502 gal (depending on undercarriage version)	
Hydraulic oil filter	3 main return filters with integrated partial micro filtration (5 µm), 1 high pressure filter for each main pump	
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 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 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	

LH 150 C – Dimensions

Port

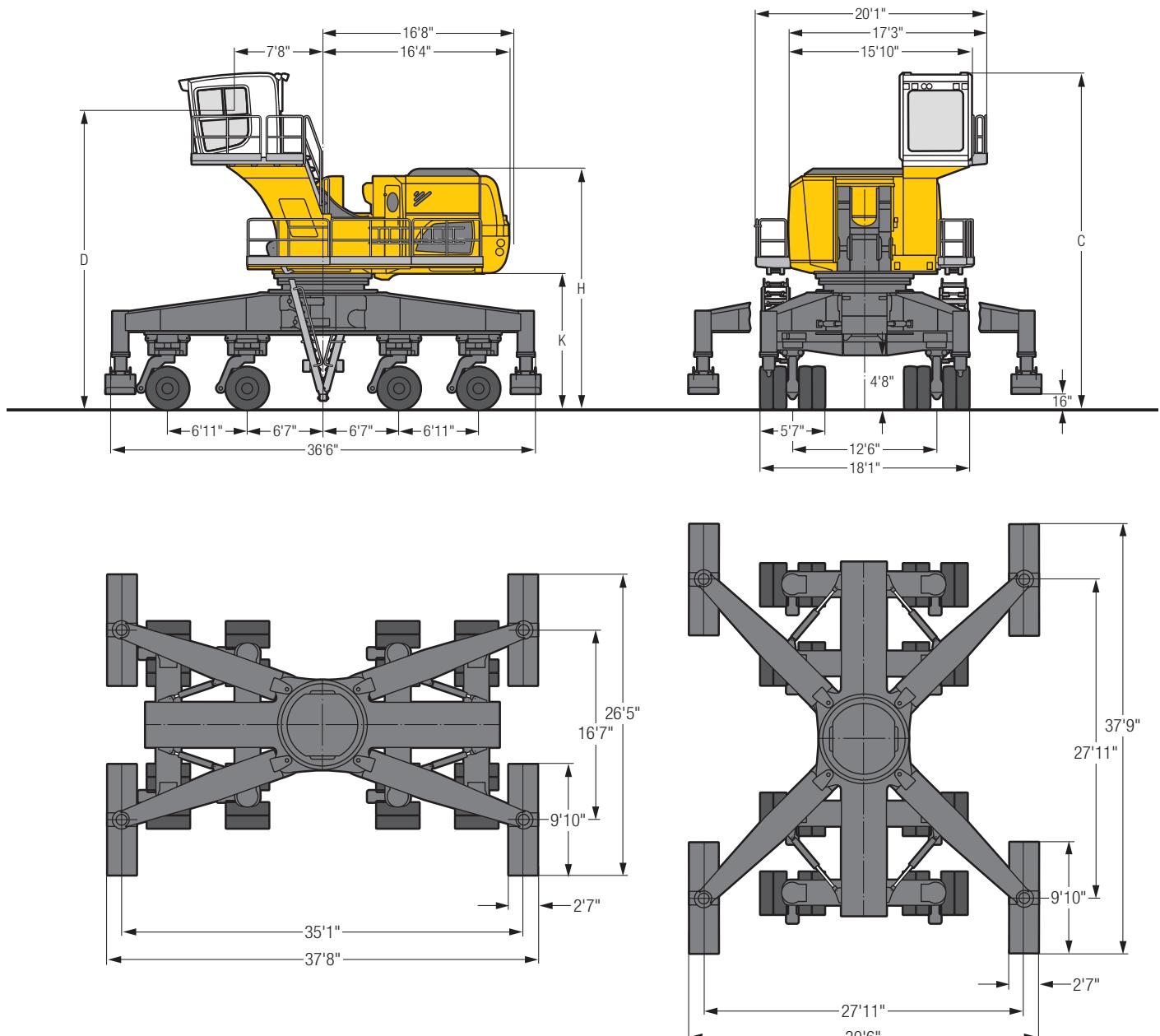


Increase type without turret	LFC 250 ft in
A	21' 4"
C	23'10"
D	20' 6"
H	15' 6"
K	6' 5"
N	2' 6" 3' 3"
B	21' 2" 22'
G	22'10" 23' 8"

Increase type Turret 6'7"	LFC 250 ft in
A	24'5"
C	30'5"
D	27'1"
H	22'1"
K	13'
N	2' 6" 3'3"
B	21' 2" 22'
G	22'10" 23'8"

LH 150 M - Dimensions

Port

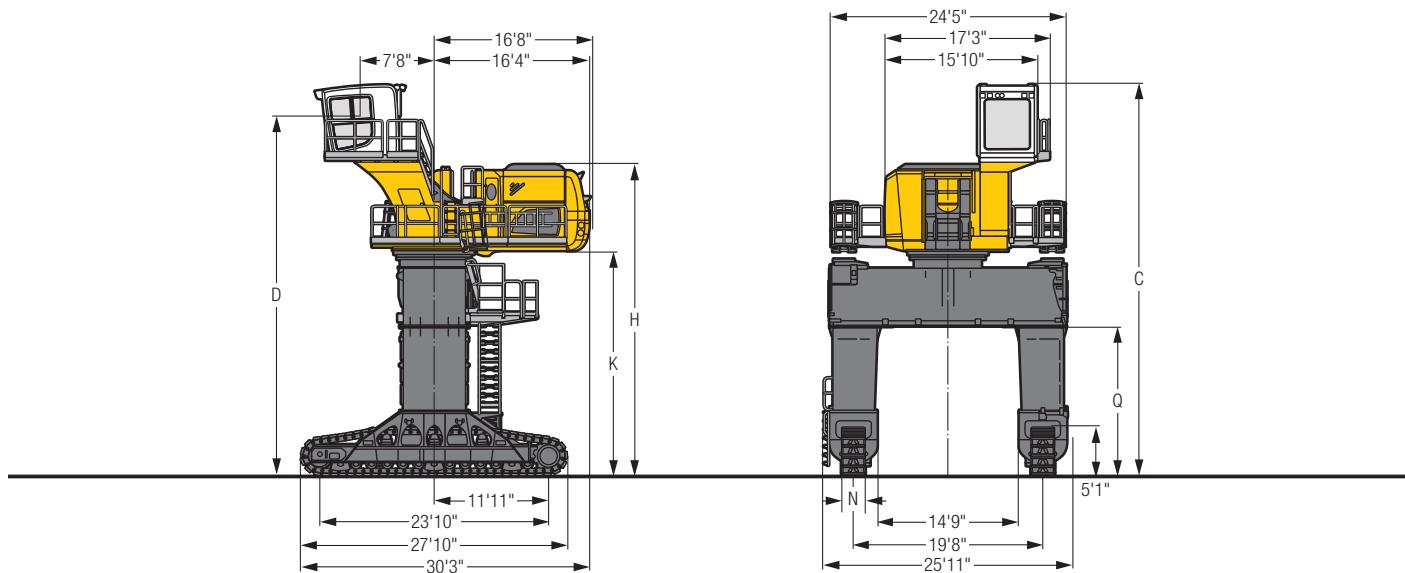


Increase type without turret	LFC 250 ft in
C	29' 1"
D	25'10"
H	20' 9"
K	11' 8"

Increase type Turret 6'7"	LFC 250 ft in
C	35'7"
D	32'4"
H	27'4"
K	18'3"

LH 150 C Gantry - Dimensions

Port



Increase type

Gantry 15'5"

	LFC 250	ft in
C	40'8"	
D	37'5"	
H	32'4"	
K	23'4"	
N	2'6" 3'3"	
Q	15'5"	

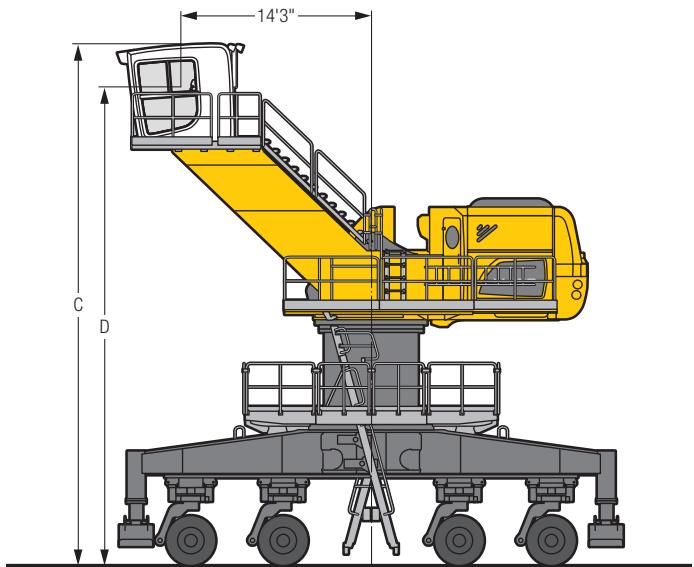
Increase type

Gantry 18'1"

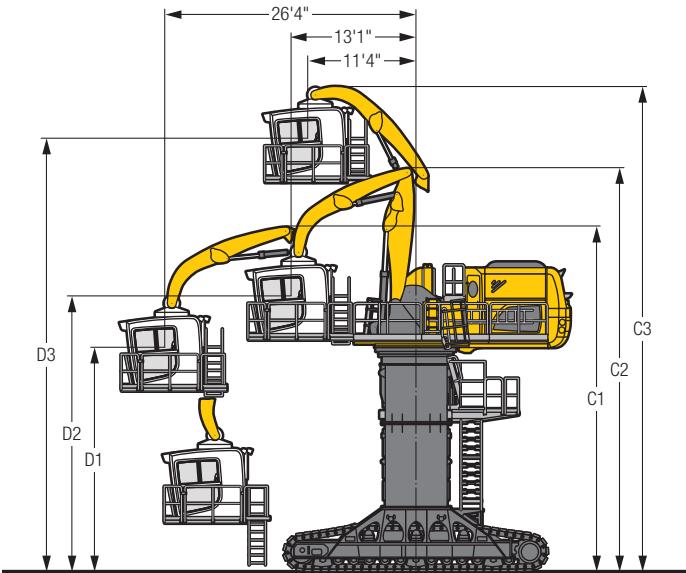
	LFC 250	ft in
C	43' 4"	
D	40'	
H	35'	
K	25'11"	
N	2'6" 3' 3"	
Q	18' 1"	

Choice of Cab Elevation

Cab Elevation LFC (Rigid Elevation)



Cab Lift (Hydraulic Elevation)



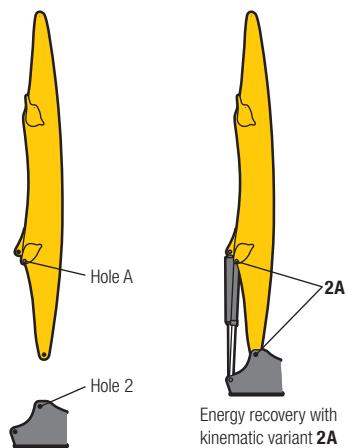
Increase type		LFC 350	
LH 150 C			
Height		without turret	Turret 6'7"
C	ft in	27' 2"	33' 8"
D	ft in	23'10"	30' 4"
LH 150 M			
Height		without turret	Turret 6'7"
C	ft in	32' 5"	38'11"
D	ft in	29' 1"	35' 8"
LH 150 C			
Height		with gantry 15'5"	with gantry 18'1"
C	ft in	44'	46' 7"
D	ft in	40' 8"	43' 4"

Increase type		LHC-D 1090 T			
		LH 150 C	LH 150 M	LH 150 C	LH 150 C
Height		Turret 6' 7"	Turret 6' 7"	Gantry 15'5"	Gantry 18' 1"
C1	ft in	25' 8"	30'11"	36'	38' 7"
C2	ft in	31'10"	37' 1"	42'2"	44' 9"
C3	ft in	40' 5"	45' 8"	50'9"	53' 4"
D1	ft in	13' 1"	18' 4"	23'5"	26'
D2	ft in	18' 5"	23' 8"	28'9"	31' 4"
D3	ft in	35'	40' 2"	45'3"	47'11"

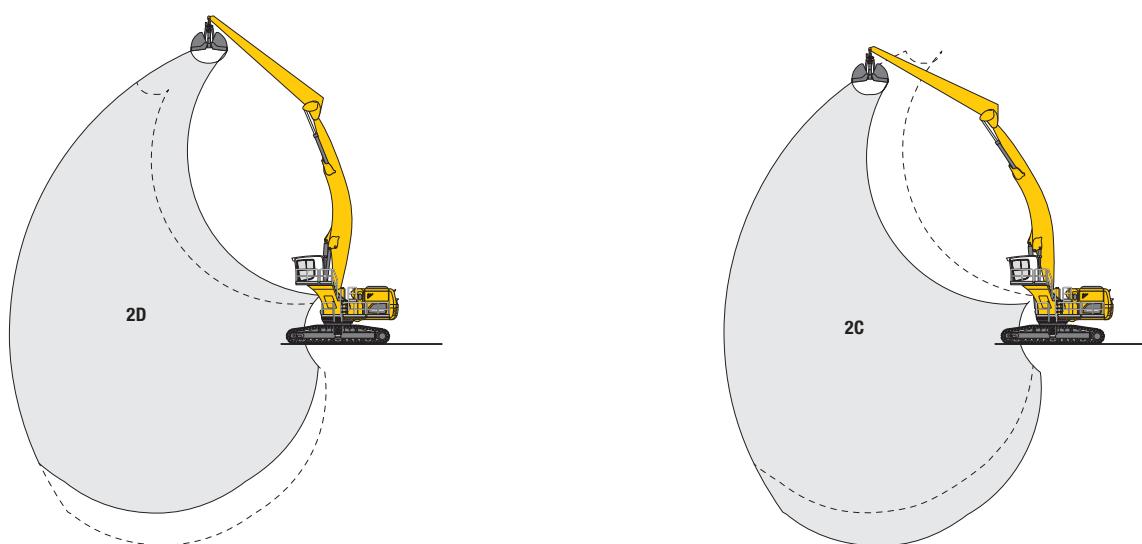
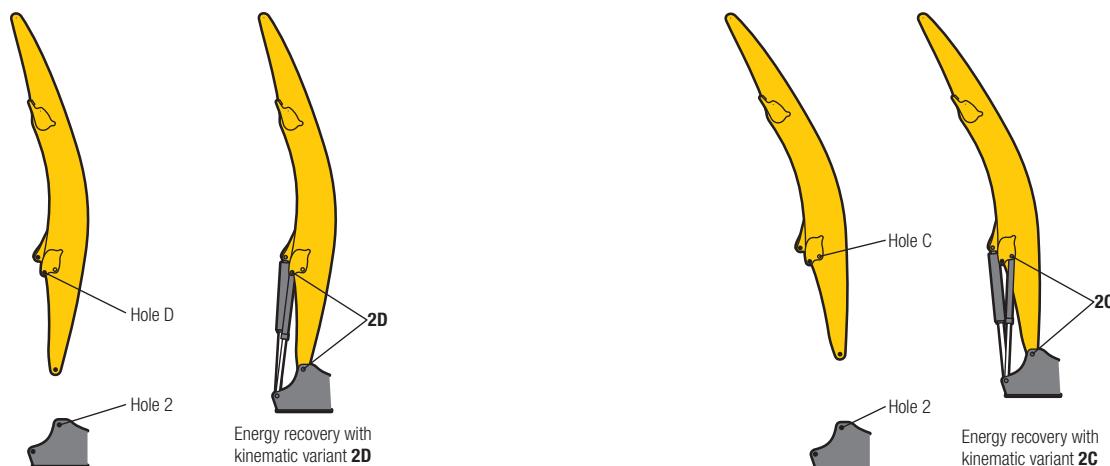
Kinematic Variants

Variolift®
plus

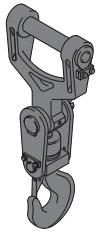
Kinematic Variant 2A



Kinematic Variant 2D/2C

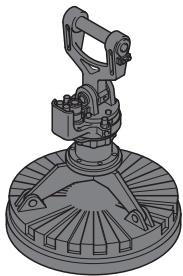


Altered range curve with additional reach depth, e.g. for unloading from ships



| Load Hook with Suspension

Max. load	lb 55,115
Weight	lb 562



| Magnet Devices/Lifting Magnets

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



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 saving on fuel – and, at the same time, even greater performance.



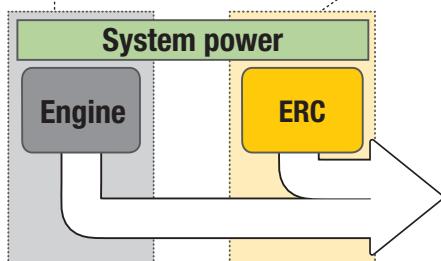
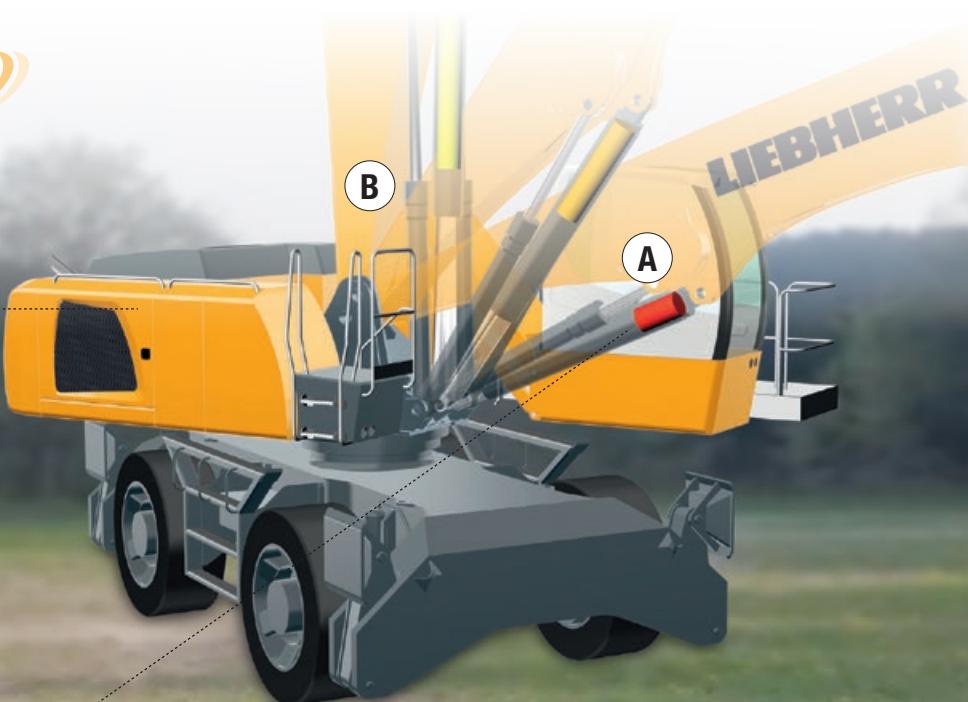
1. Attachment fitting raised/
Energy released



2. Lower attachment fitting / Store energy
4. Raise attachment fitting / Release energy

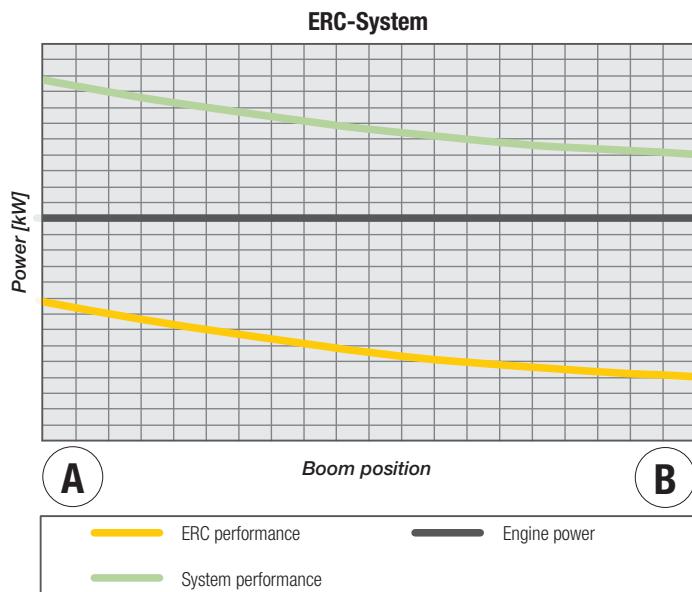


3. Attachment fitting lowered /
Energy stored



System power

The energy recovery cylinder is a storage system which is independent of the 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 diesel engine.



The Liebherr Group of Companies



Wide Product Range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

Exceptional Customer Benefit

Every product line provides a complete range of models in many different versions. With both their technical excellence and acknowledged quality, Liebherr products offer a maximum of customer benefits in practical application.

State-of-the-art Technology

To provide consistent, top quality products, Liebherr attaches great importance to each product area, its components and core technologies. Important modules and components are developed and manufactured in-house, for instance the entire drive and control technology for construction equipment and mining trucks.

Worldwide and Independent

Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 130 companies with over 41,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.us