

LHM 800

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EN

LIEBHERR

Mobile harbour crane



Maximum lifting capacity
308 t



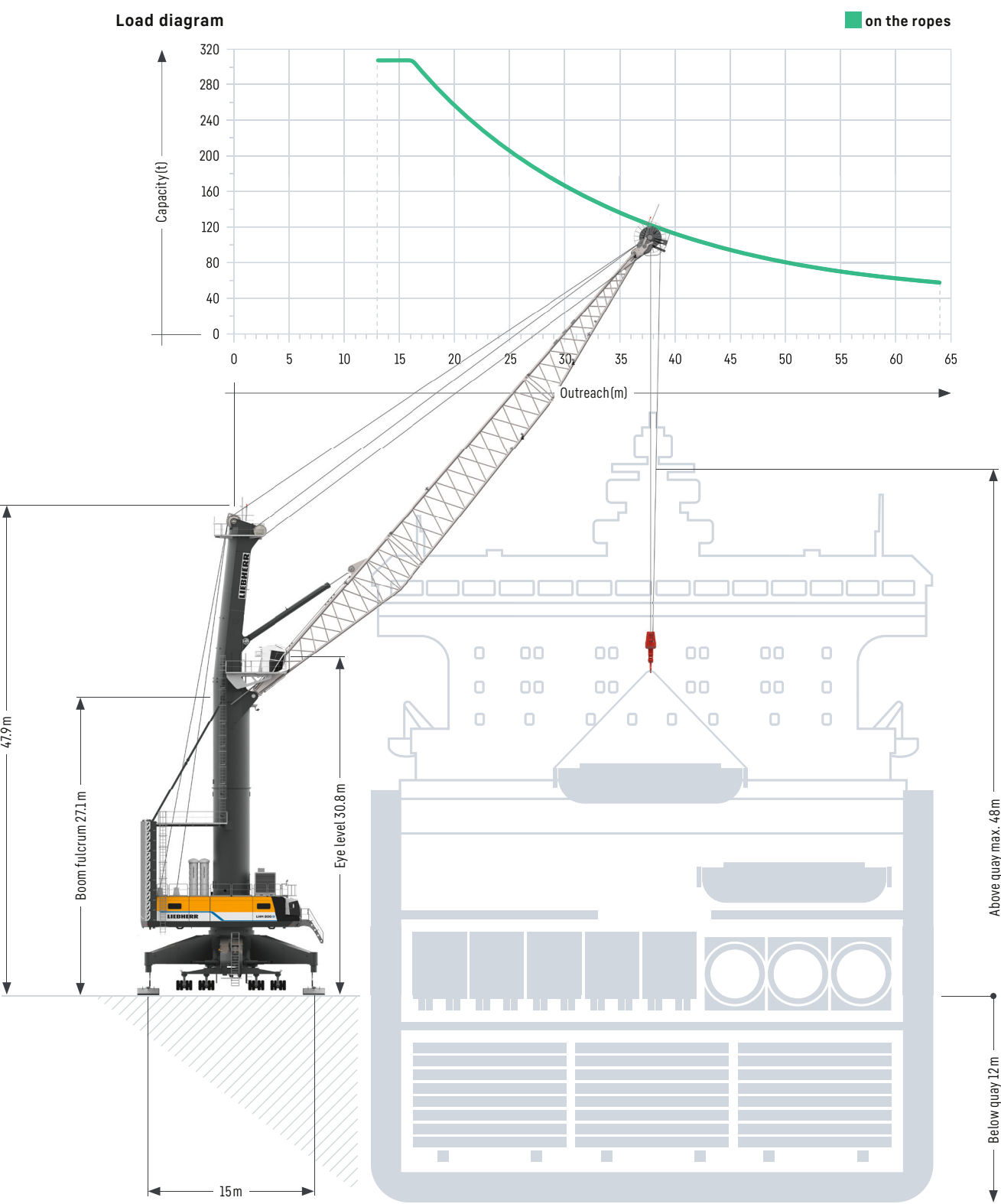
Maximum outreach
64 m



Ship size
Very Large Bulk Carrier,
Ultra Large Container Ship

Main dimensions

Heavy lift operation



Lifting capacities

Heavy lift operation

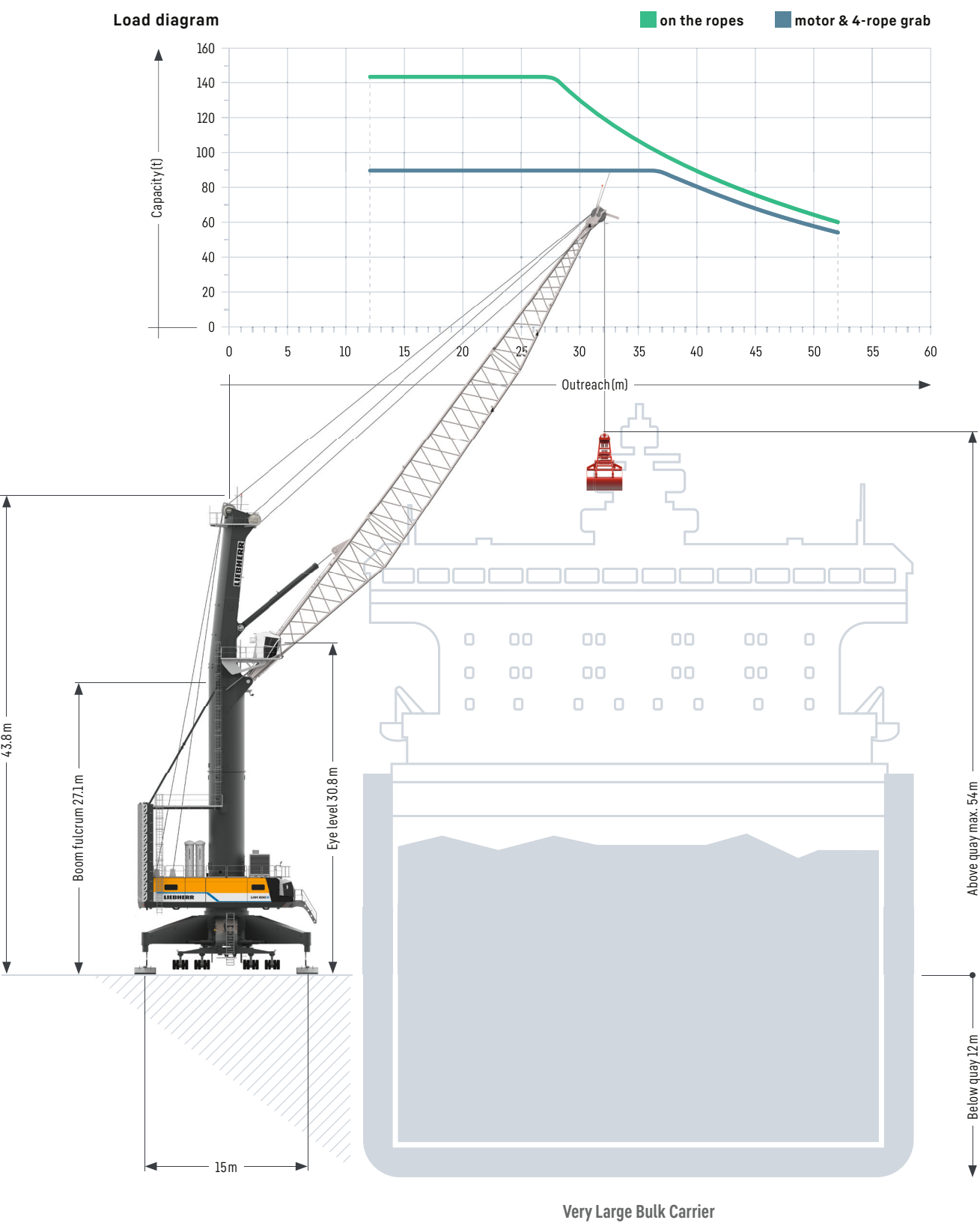
Lifting capacity 308t	
Outreach	Hook operation on the ropes
(m)	Heavy lift (t)
13	308.0
14	308.0
15	308.0
16	308.0
17	296.1
18	281.4
20	255.9
22	232.4
24	211.1
26	194.9
28	180.0
30	165.6
32	152.5
34	140.8
36	130.8
38	122.2
40	114.2
42	106.6
44	99.6
46	93.3
48	87.6
50	82.3
52	77.4
56	69.2
58	65.9
60	62.9
62	60.3
64	57.9

Project cargo & heavy lift up to 308 tonnes

Safety and precision are the most important criteria when lifting heavy goods.

Main dimensions

Bulk operation



Lifting capacities

Bulk operation

Lifting capacity 144 t

Outreach (m)	Hook operation on the ropes (t)	Grab operation on the ropes	
		4-rope grab (t)	motor grab (t)
12 - 27	144.0	90.0	90.0
28	142.2	90.0	90.0
30	130.8	90.0	90.0
32	120.5	90.0	90.0
33	115.7	90.0	90.0
34	111.2	90.0	90.0
35	107.2	90.0	90.0
36	103.4	90.0	90.0
37	99.9	89.9	89.9
38	96.6	86.9	86.9
39	93.5	84.1	84.1
40	90.2	81.2	81.2
41	87.2	78.5	78.5
42	84.2	75.8	75.8
43	81.4	73.2	73.2
44	78.7	70.8	70.8
45	76.1	68.5	68.5
46	73.7	66.3	66.3
47	71.3	64.2	64.2
48	69.2	62.3	62.3
49	67.0	60.3	60.3
50	65.0	58.5	58.5
51	63.1	56.8	56.8
52	61.2	55.1	55.1

Weight ramshorn hook 3.8 t
Weight rotator 4.0 t

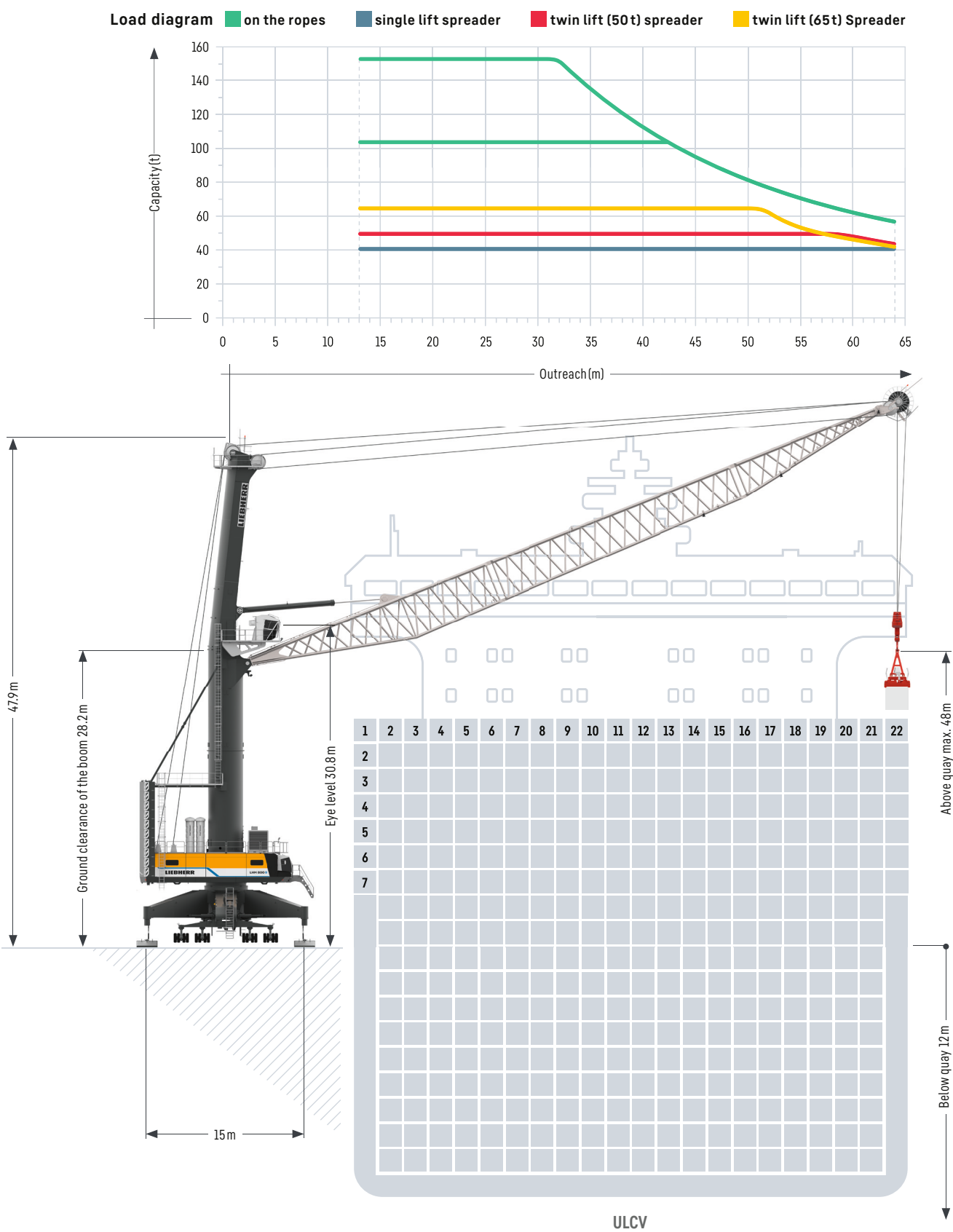
Standard configuration – Turnover up to 1,800 t per hour

Pactronic® – Turnover up to 2,300 t per hour

The powerful hydrostatic transmission and advanced Liebherr electronics ensure short, productive working cycles during bulk handling.

Main dimensions

Container operation



Lifting capacities

Container operation

Lifting capacity 104 t

Outreach (m)	Spreader operation under			Hook operation on the ropes (t)
	Single lift (t)	Twin lift (50 t) (t)	Twin lift (65 t) (t)	
13 - 42	41.0	50.0	65.0	104.0
43	41.0	50.0	65.0	103.0
44	41.0	50.0	65.0	99.6
45	41.0	50.0	65.0	96.4
46	41.0	50.0	65.0	93.3
47	41.0	50.0	65.0	90.3
48	41.0	50.0	65.0	87.6
49	41.0	50.0	65.0	84.8
50	41.0	50.0	65.0	82.3
51	41.0	50.0	65.0	79.9
52	41.0	50.0	62.9	77.4
53	41.0	50.0	60.6	75.1
54	41.0	50.0	58.6	73.1
55	41.0	50.0	56.7	71.2
56	41.0	50.0	54.7	69.2
57	41.0	50.0	53.1	67.6
58	41.0	50.0	51.4	65.9
59	41.0	50.0	49.9	64.4
60	41.0	48.7	48.4	62.9
61	41.0	47.4	47.1	61.6
62	41.0	46.1	45.8	60.3
63	41.0	44.9	44.6	59.1
64	41.0	43.7	43.4	57.9

Weight rotator 3.5t; Weight fully automatic (telescopic) spreader 9.0t
Weight twin lift (50t) spreader 10.7t; Weight twin lift (65t) spreader 11.0t

Lifting capacity 154 t

Outreach (m)	Spreader operation under			Hook operation on the ropes (t)
	Single lift (t)	Twin lift (50 t) (t)	Twin lift (65 t) (t)	
13 - 31	41.0	50.0	65.0	154.0
32	41.0	50.0	65.0	152.5
36	41.0	50.0	65.0	130.8
40	41.0	50.0	65.0	114.2
43	41.0	50.0	65.0	103.0
44	41.0	50.0	65.0	99.6
46	41.0	50.0	65.0	93.3
48	41.0	50.0	65.0	87.6
50	41.0	50.0	65.0	82.3
51	41.0	50.0	64.9	79.9
52	41.0	50.0	62.4	77.4
53	41.0	50.0	60.1	75.1
54	41.0	50.0	58.1	73.1
55	41.0	50.0	56.2	71.2
56	41.0	50.0	54.2	69.2
57	41.0	50.0	52.6	67.6
58	41.0	50.0	50.9	65.9
59	41.0	49.7	49.4	64.4
60	41.0	48.2	47.9	62.9
61	41.0	46.9	46.6	61.6
62	41.0	45.6	45.3	60.3
63	41.0	44.4	44.1	59.1
64	41.0	43.2	42.9	57.9

Weight rotator 4.0t; Weight fully automatic (telescopic) spreader 9.0t
Weight twin lift (50t) spreader 10.7t; Weight twin lift (65t) spreader 11.0t

Standard configuration – Turnover up to 34 cycles per hour

Pactronic® – Turnover up to 40 cycles per hour

Precision to perfection: With incredibly short acceleration times for all crane motions, Liebherr is the top performer in container handling.

Technical data

Heavy lift operation

Capacity and classification		
	Capacity	Classification
Heavy lift operation	≤ 90 t	A8
Heavy lift operation	≤ 154 t	A5
Heavy lift operation	≤ 308 t	A2

Main dimensions	
Min. to max. outreach	13 – 64 m
Height of boom fulcrum	27.1 m
Tower cabin height (eye level)	30.8 m
Overall height (top of tower)	47.9 m
Overall length of undercarriage	23.0 m
Overall width of undercarriage	10.3 m
Number of axle sets (standard)	34
Number of axle sets (optional)	40

Working speeds	
Hoisting / lowering	0 – 120 m/min
Slewing	0 – 1.6 rpm
Luffing (average horizontal speed)	51 m/min
Travelling	0 – 4 km/h

Bulk Operation

Capacity and classification		
	Capacity	Classification
Motor grab operation	≤ 63 t	A8
Four rope grab operation	≤ 63 t	A8
Four rope grab operation	≤ 77 t	A7

Main dimensions	
Min. to max. outreach	12 – 52 m
Height of boom fulcrum	27.1 m
Tower cabin height (eye level)	30.8 m
Overall height (top of tower)	43.8 m
Overall length of undercarriage	23.0 m
Overall width of undercarriage	10.3 m
Number of axle sets (standard)	28
Number of axle sets (optional)	40

Working speeds	
Hoisting / lowering	0 – 140 m/min
Slewing	0 – 1.6 rpm
Luffing (average horizontal speed)	60 m/min
Travelling	0 – 4 km/h

Propping arrangements	
Standard supporting base	15.0 m x 15.0 m
Standard pad dimension	4.0 x 8.0 m x 2.0 m
Standard supporting area of pads	16 m²
Optional size of supporting pads and bases on request	

Quay load arrangements	
Uniformly distributed load	2.74 t/m²
Max. load per tyre	6 t
Due to a unique undercarriage design the quay loads specified above can even be reduced. Pad sizes, supporting base and the number of axle sets can easily be adapted to comply with the most stringent quay load restrictions.	

Weight	
Total weight of crane in heavy lift version (308 t winch, 64 m boom, Pactronic*)	approx. 783 t

Hoisting heights	
Above quay at minimum radius	48.0 m
Above quay at maximum radius	46.0 m
Below quay level	12.0 m

Propping arrangements	
Standard supporting base	15.0 m x 15.0 m
Standard pad dimension	4.0 x 8.0 m x 2.0 m
Standard supporting area of pads	16 m²
Optional size of supporting pads and bases on request	

Quay load arrangements	
Uniformly distributed load	2.04 t/m²
Max. load per tyre	6 t
Due to a unique undercarriage design the quay loads specified above can even be reduced. Pad sizes, supporting base and the number of axle sets can easily be adapted to comply with the most stringent quay load restrictions.	

Weight	
Total weight of crane in bulk version (144 t winch, 52 m boom, Pactronic*)	approx. 652 t

Hoisting heights	
Above quay at minimum radius	54.0 m
Above quay at maximum radius	43.6 m
Below quay level	12.0 m

Hook & container operation

Capacity and classification		
	Capacity	Classification
Container operation	≤ 90 t	A8
Hook operation	≤ 95 t	A5
Hook operation	≤ 154 t	A3

Main dimensions	
Min. to max. outreach	13 – 64 m
Height of boom fulcrum	27.1 m
Tower cabin height (eye level)	30.8 m
Overall height (top of tower)	47.9 m
Overall length of undercarriage	23.0 m
Overall width of undercarriage	10.3 m
Number of axle sets (standard)	32
Number of axle sets (optional)	40

Working speeds	
Hoisting / lowering	0 – 120 m/min
Slewing	0 – 1.6 rpm
Luffing (average horizontal speed)	51 – 66 m/min
Travelling	0 – 4 km/h

Propping arrangements	
Standard supporting base	15.0 m x 15.0 m
Standard pad dimension	8.0 m x 2.0 m
Standard supporting area of pads	16 m²
Optional size of supporting pads and bases on request	

Quay load arrangements	
Uniformly distributed load	2.24 t/m²
Max. load per tyre	6.0 t

Due to a unique undercarriage design the quay loads specified above can even be reduced. Pad sizes, supporting base and the number of axle sets can easily be adapted to comply with the most stringent quay load restrictions.

Weight	
Total weight of crane in container version (154 t winch, 64 m boom, Pactronic*)	approx. 722 t

Hoisting heights	
Above quay at minimum radius	48.0 m
Above quay at maximum radius	46.0 m
Below quay level	12.0 m

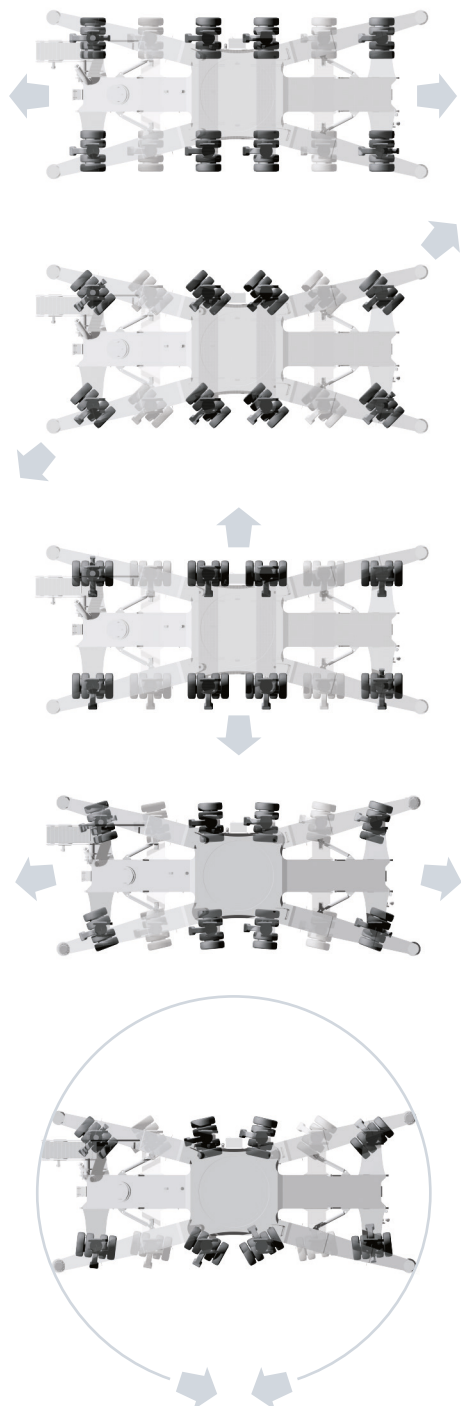
Noise emissions and vibrations	
Emission sound pressure level LPA in the cabin	66.4 db(A)
Guaranteed sound power level LWA of the machine	110 db(A)
Vibrations on upper limbs of the machine operator	< 2.5 m/s²
Vibrations on the entire body of machine operator	< 0.5 m/s²

Undercarriage

Mobility

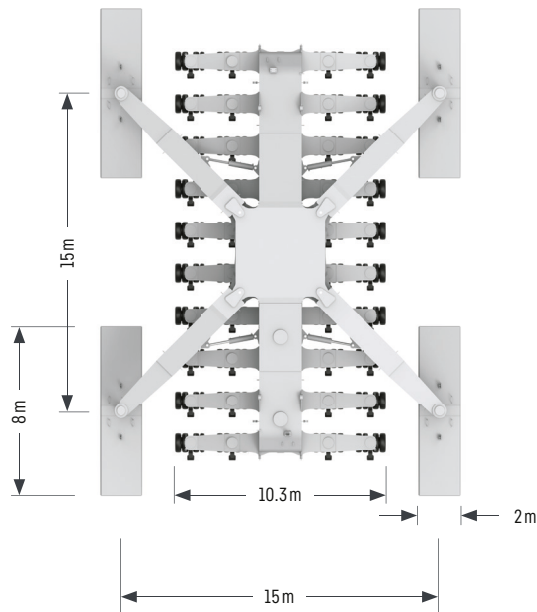
- Outstanding mobility and manoeuvrability
- Curves at any possible radii and even slewing on the spot

Schematic diagram



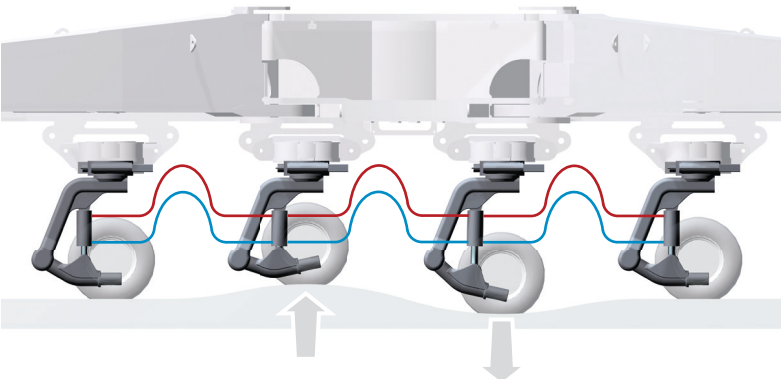
Modular propping system

- Minimised stress and strain of undercarriage due to cruciform support base which directs the load path from boom tip to quay
- Modular system allows further reduction of quay loads by installing additional axle sets
- Easy adaptation to various sizes of support pads and bases



Hydraulic load distribution

- Hydraulic suspension avoids overloading of individual wheel sets
- Standard trailer tyres making requisition of spares economical and time-saving
- Increased lifetime of tyres due to individually steerable wheel sets



Optimum pressure distribution and adaption of wheel sets on uneven surfaces

Optional equipment

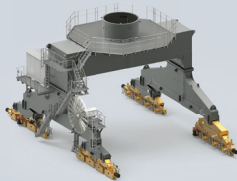
Additional products and services

- Electric drive with high or low voltage connection
- Fully biodegradable hydraulic fluids
- HVO 100 certified drives
- Pactronic® - power by accumulator and electronics
- SmartGrip - intelligent grabbing
- Anti-sway system
- Teach-In - semi-automatic point to point system
- Sycratronic® - synchronizing crane control system
- Vertical Line Finder - diagonal pull preventing system
- Anti collision alert
- LiDAT® - smartApp
- Economy software - for optimised fuel consumption
- Video monitoring system
- Radio remote control
- Autopropping undercarriage
- Cyclone air-intake system for the engine
- Low temperature package
- Customer-specific painting & logo
- Additional (driven) axle sets
- Axle sets equipped with foamed tyres
- Different supporting bases and pad sizes
- Tower extension 9.6m
- And many more as per customers' requirements

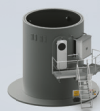
Practical Solutions



LPS 800



LFS 800



LHM 800



Liebherr develops and produces special designs and solutions to meet customer-specific requirements

The Liebherr Portal Crane (LPS) is an efficient combination of a space-saving portal (mounted on rails) and the proven mobile harbour crane concept. Particularly on narrow quays, individual portal solutions permit (railway) trains and (road) trucks to travel below the portal.

Liebherr Fixed Slewing Cranes (LFS) are an efficient combination of a mobile harbour crane upper carriage and a fixed pedestal. LFS cranes provide an economical and space-saving solution for the installation on quaysides and jetties, especially where room for manoeuvring is limited and low ground pressure is essential. Additionally LFS solutions are also ideally suited for the installation on crane barges.