EN

LHM 800

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LIEBHERR

Mobile harbour crane

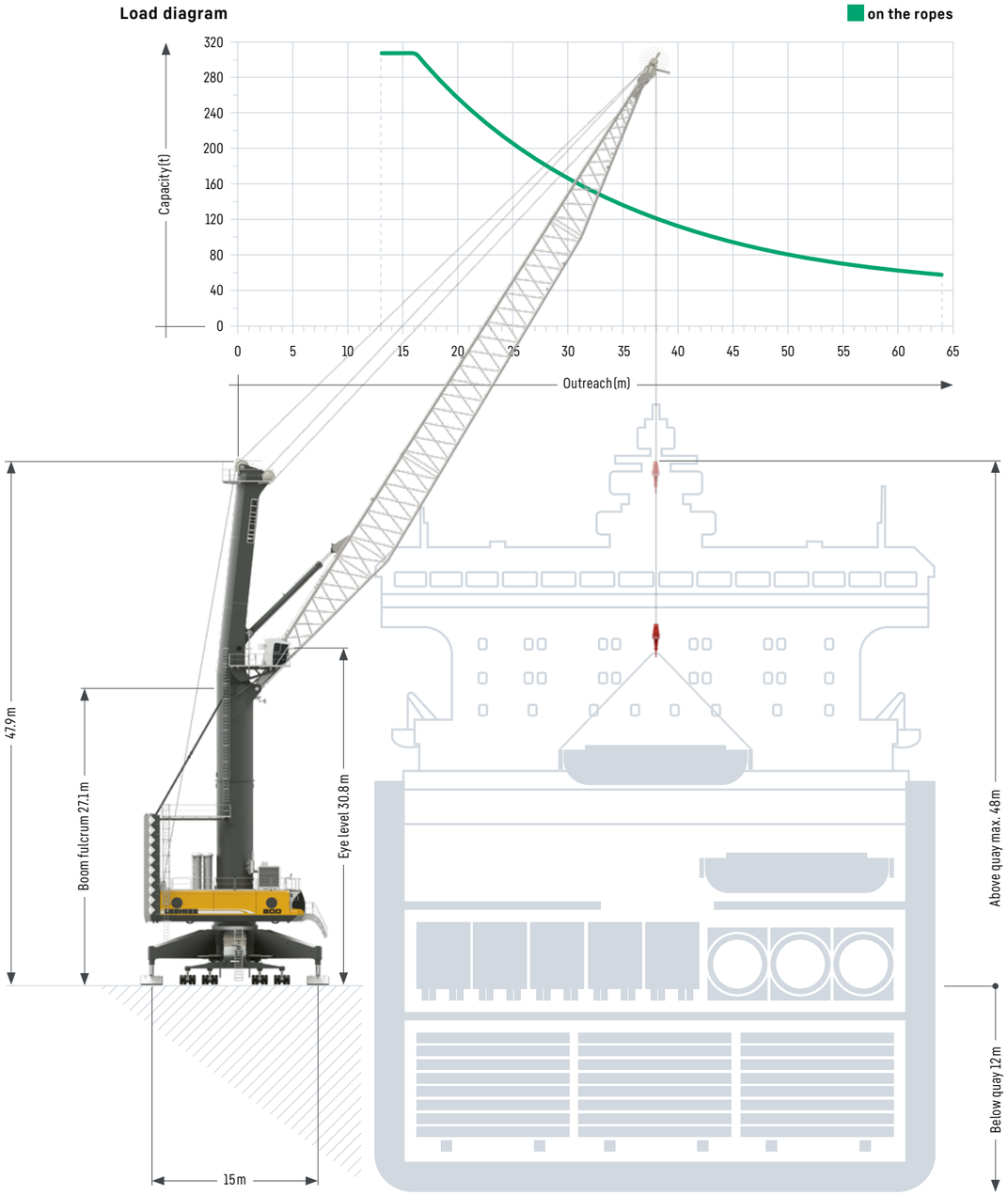
Maximum lifting capacity
308 t

Maximum outreach
64 m

Ship size
Very Large Bulk Carrier, Ultra Large Container Ship

Main dimensions

Heavy lift operation



Lifting capacities

Heavy lift operation

Maximum crane capacity 308 t

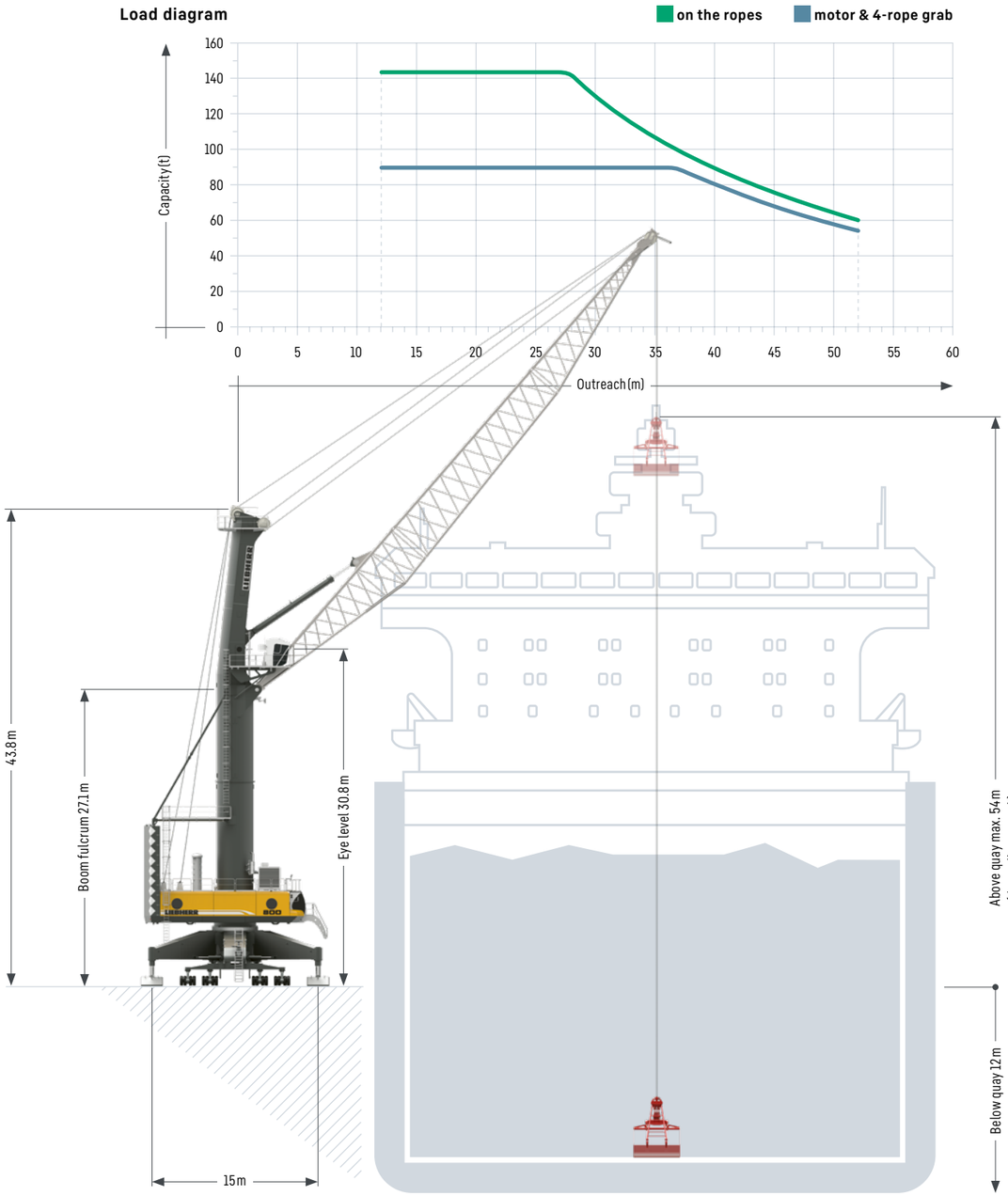
	Hook operation on the ropes
Outreach	Heavy lift
(m)	(t)
13	308.0
14	308.0
15	308.0
16	308.0
17	296.1
18	281.4
20	255.9
22	232.4
24	211.1
26	194.9
28	180.0
30	165.6
32	152.5
34	140.8
36	130.8
38	122.2
40	114.2
42	106.6
44	99.6
46	93.3
48	87.6
50	82.3
52	77.4
56	69.2
58	65.9
60	62.9
62	60.3
64	57.9

Project cargo & heavy lift up to 308 tonnes

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

Main dimensions

Bulk operation



Very Large Bulk Carrier

Lifting capacities

Bulk operation

Maximum crane capacity 144 t

	Hook operation	Grab operation on the ropes	
Outreach	on the ropes	4-rope grab	motor grab
(m)	(t)	(t)	(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

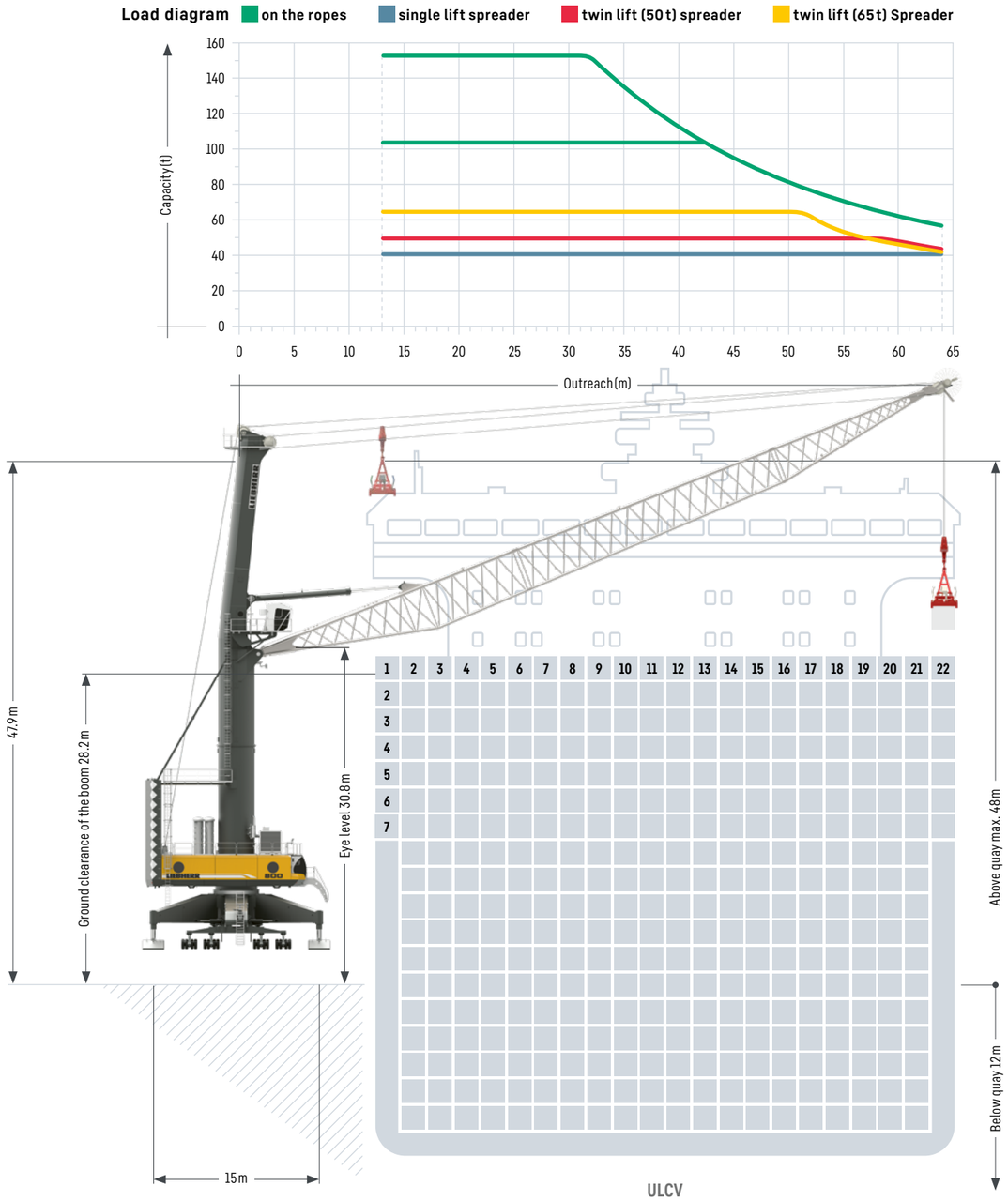
Standard configuration – Turnover up to 1,800 t per hour

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

Maximum crane capacity 104 t

	Spreader operation under			Hook operation on the ropes
Outreach	Single lift	Twin lift (50 t)	Twin lift (65 t)	Standard
(m)	(t)	(t)	(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 3.5 t; Weight fully automatic (telescopic) spreader 9.0 t
Weight twin lift (50 t) spreader 10.7 t; Weight twin lift (65 t) spreader 11.0 t

Maximum crane capacity 154 t

	Spreader operation under			Hook operation on the ropes
Outreach	Single lift	Twin lift (50 t)	Twin lift (65 t)	Standard
(m)	(t)	(t)	(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 4.0 t ; Weight fully automatic (telescopic) spreader 9.0 t
Weight twin lift (50 t) spreader 10.7 t ; Weight twin lift (65 t) spreader 11.0 t

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	≤ 308t	A2
Standard operation	≤ 154t	A5
Standard operation	≤ 90t	A8

Main dimensions

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

Working speeds

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

Propping arrangements

Standard supporting base	15.0m x 15.0m
Standard pad dimension	4.0 x 8.0m x 2.0m
Standard supporting area of pads	16m²

Optional size of supporting pads and bases on request

Quay load arrangements

Uniformly distributed load	2.74t/m²
Max. load per tyre	6t

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 (308t winch, 64m boom, Pactronic®)	approx. 783t

Hoisting heights

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

Bulk Operation

Capacity and classification

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

Main dimensions

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

Working speeds

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

Propping arrangements

Standard supporting base	15.0m x 15.0m
Standard pad dimension	4.0 x 8.0m x 2.0m
Standard supporting area of pads	16m2

Optional size of supporting pads and bases on request

Quay load arrangements

Uniformly distributed load	2.04t/m²
Max. load per tyre	6t

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 (144t winch, 52m boom, Pactronic®)	approx. 652t

Hoisting heights

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

Hook & container operation

Capacity and classification

	Capacity	Classification
Standard operation	≤ 154t	A3
Standard operation	≤ 95t	A5
Container operation	≤ 90t	A8

Main dimensions

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

Working speeds

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

Propping arrangements

Standard supporting base	15.0m x 15.0m
Standard pad dimension	8.0m x 2.0m
Standard supporting area of pads	16m²

Optional size of supporting pads and bases on request

Quay load arrangements

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

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 (154t winch, 64m boom, Pactronic®)	approx. 722t

Hoisting heights

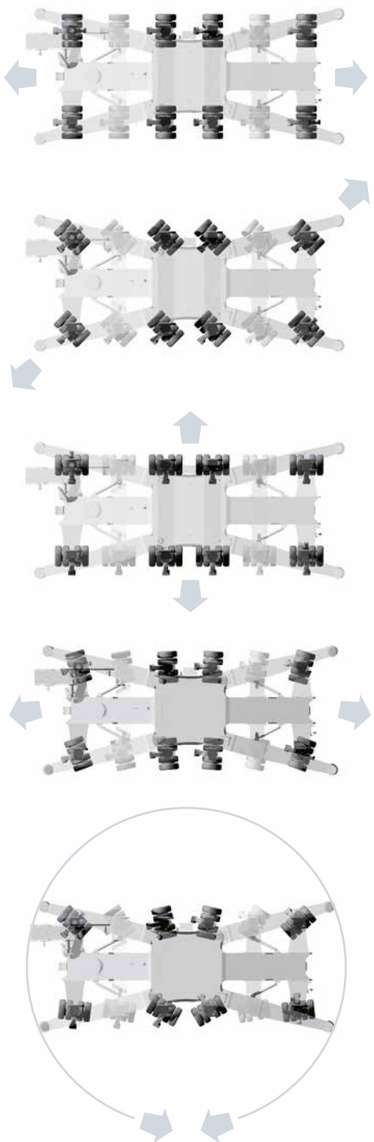
Above quay at minimum radius	48.0m
Above quay at maximum radius	46.0m
Below quay level	12.0m

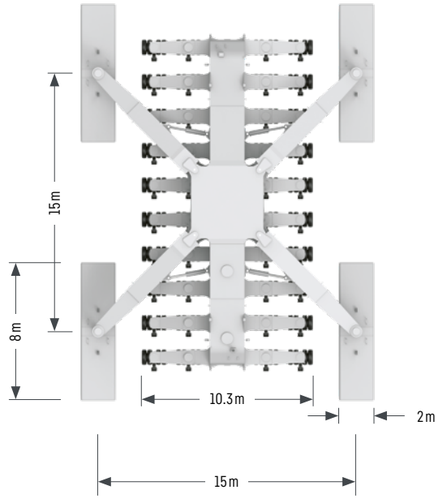
Undercarriage

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

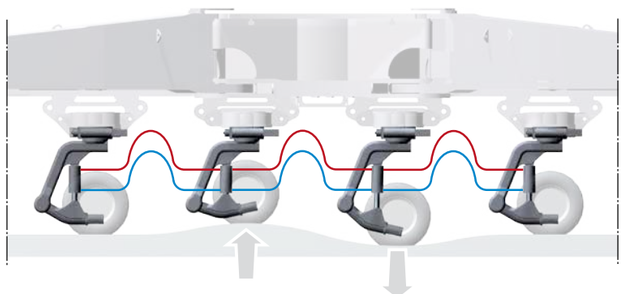
Modular propping system
- Minimised stress and strain of undercarriage due to cruciform support base which directs the load path from boom tip to quay
- Modular system allows further reduction of quay loads by installing additional axle sets
- Easy adaptation to various sizes of support pads and bases

Schematic diagram





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

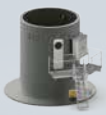
Optional equipment

Additional products and services
- Pactronic® - power by accumulator and electronics
- SmartGrip - intelligent grabbing
- Cycoptronic® - 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 9.6 m
- And many more as per customers' requirements

Practical Solutions

LPS 800

LFS 800



LHM 800

LBS 800

LHM 800 on barge

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 barge cranes (LBS) can be used for transhipment and midstream operation between ocean-going vessels and river barges on different types of waterways, including those having no or few quays. In addition, the LBS solution allows direct cargo transfer from ship to shore – especially when quays reach capacity limits.
- Depending on customer specifications, the LBS range may have varying lifting capacities due to tailor-made design solutions.
- 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.

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