

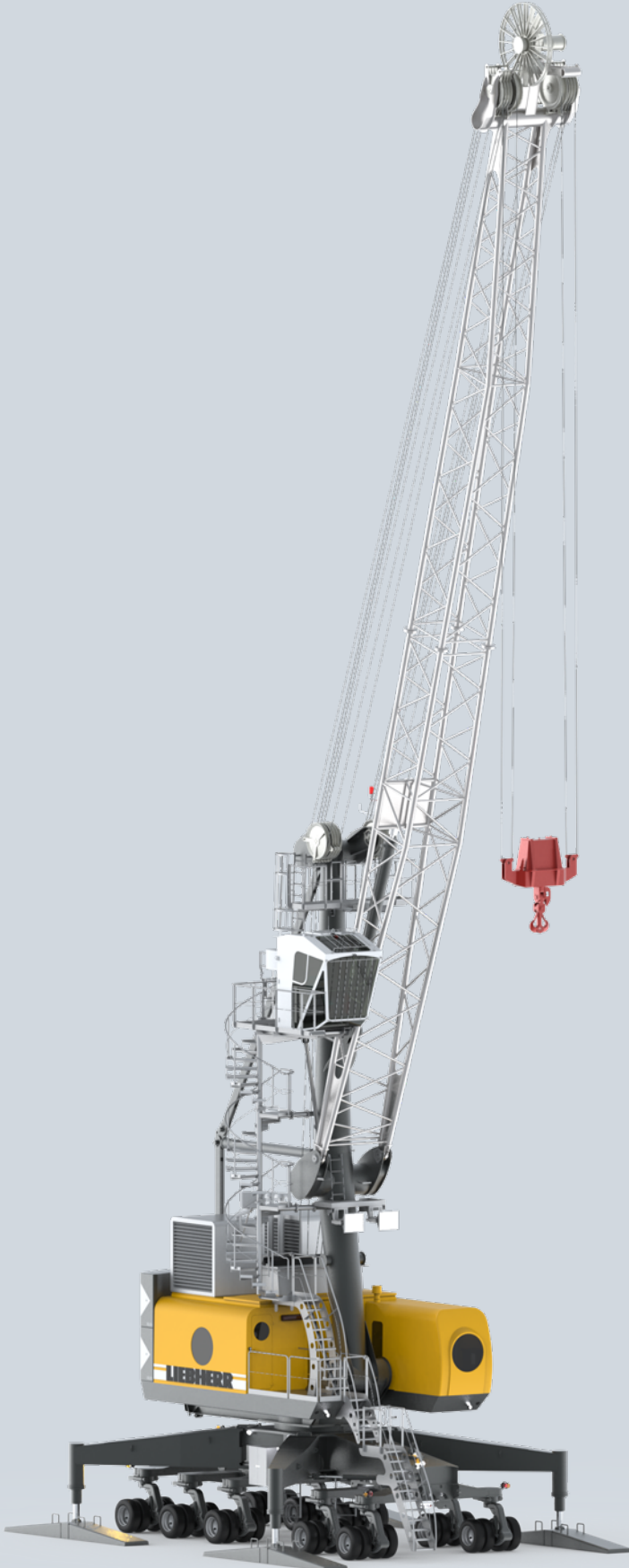
EN

LHM 120

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LIEBHERR

Mobile harbour crane



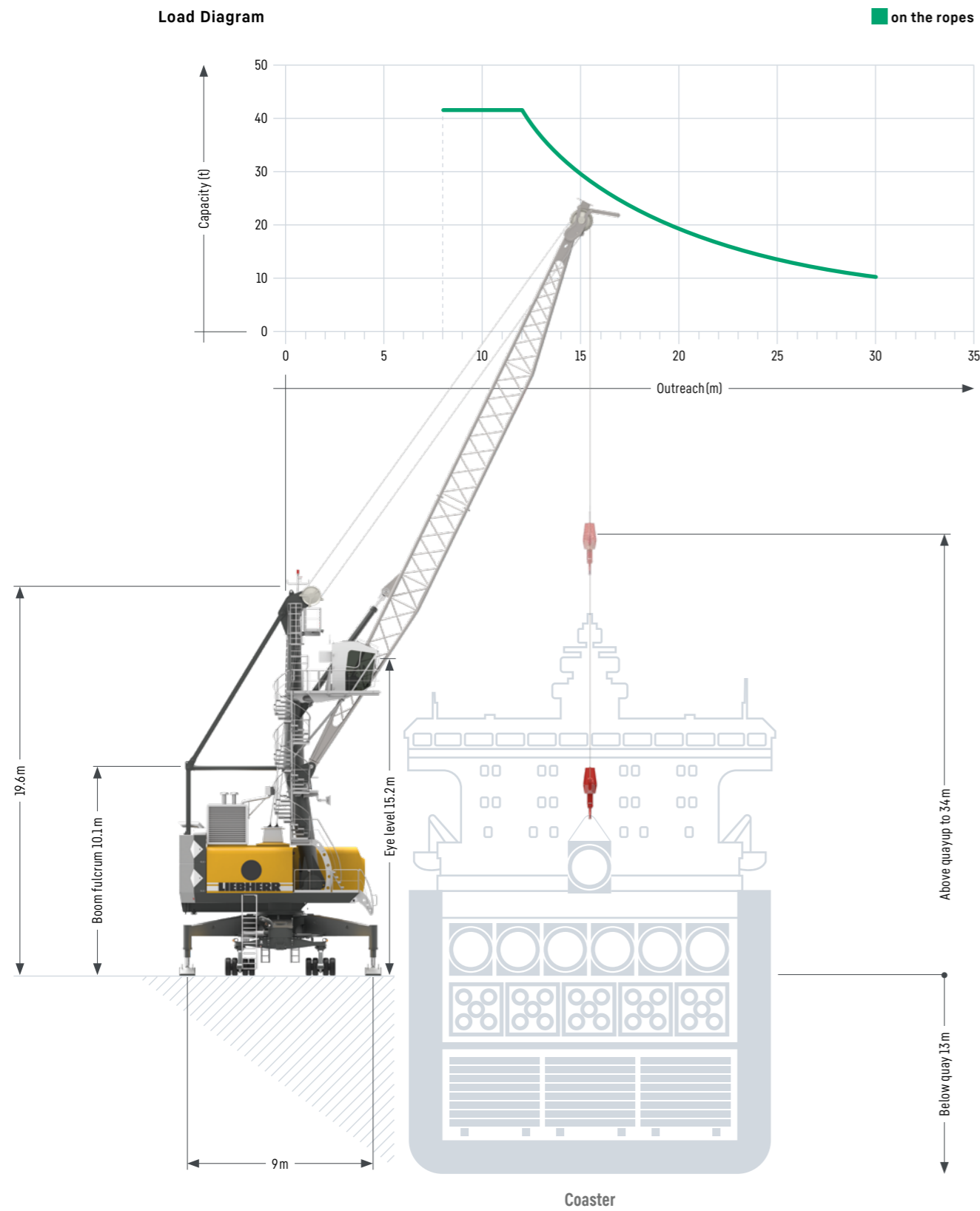
**Maximum
lifting capacity**
42t

**Maximum
outreach**
30 m

Ship size
Coaster

Main dimensions

General cargo operation



Lifting capacities

General cargo operation

Maximum crane capacity 42 t

Outreach (m)	Hook operation on the ropes (t)	Capacity under spreader	
		semi-automatic 20' (t)	semi-automatic 40' (t)
8-11	42.0	36.0	36.0
12	42.0	36.0	36.0
13	37.7	36.0	36.0
14	33.8	35.3	34.0
15	30.5	31.5	30.2
16	27.5	28.2	26.9
17	25.1	25.4	24.1
18	23.0	23.0	21.7
19	21.2	21.0	19.7
20	19.6	19.2	17.9
21	18.2	17.7	16.4
22	17.1	16.4	15.1
23	16.1	15.3	14.0
24	15.2	14.3	13.0
25	14.4	13.4	12.1
26	13.7	12.6	11.3
27	13.0	11.8	10.5
28	12.3	11.0	9.7
29	11.6	10.3	9.0
30	11.0	9.5	8.2

Weight rotator 1.5t

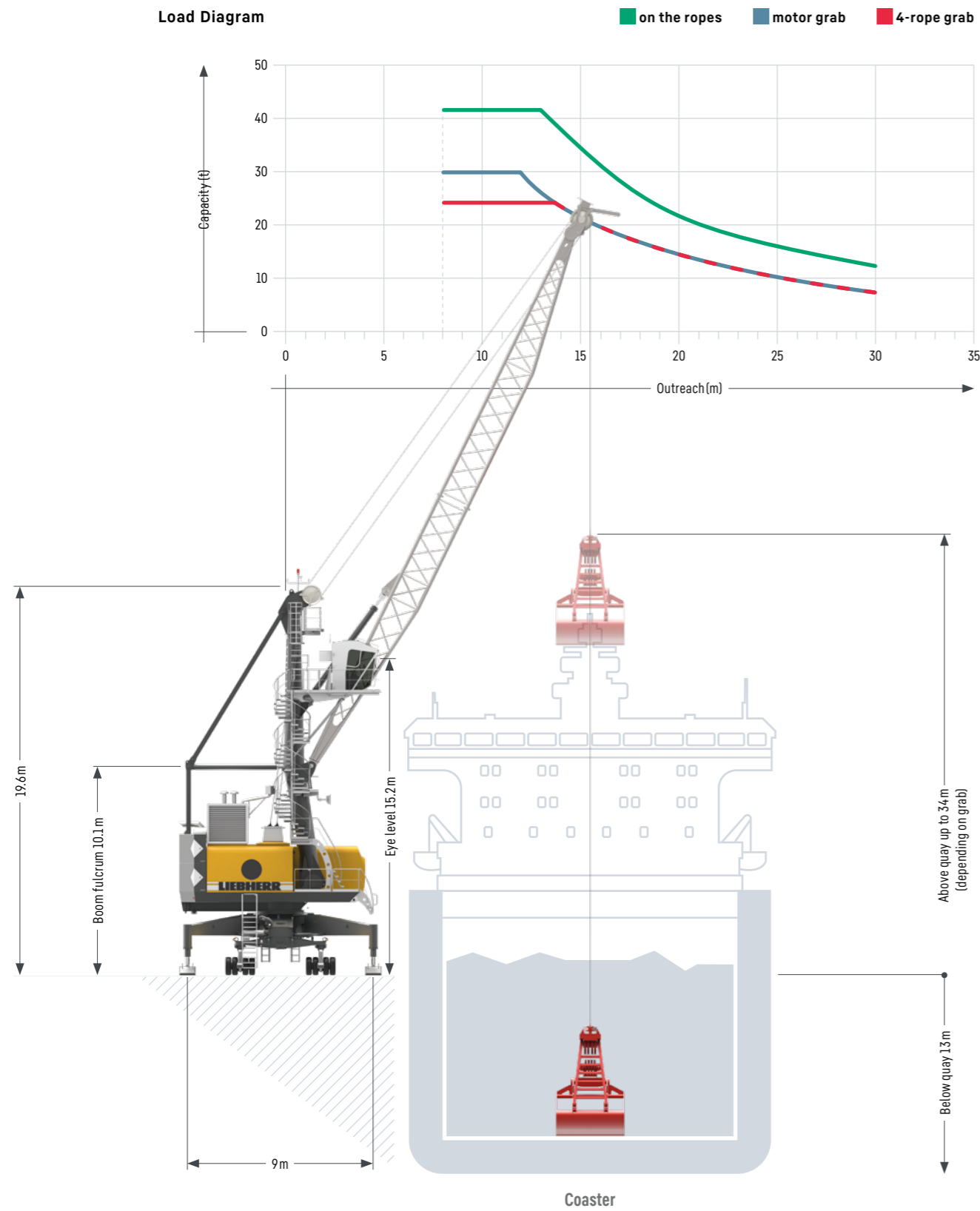
Weight semi-automatic spreader 1.3t (20ft), 2.6t (40ft)

General cargo up to 42 tonnes

The LHM displays its unique versatility and flexibility especially in general cargo handling with continuously changing operating appliances and handling methods.

Main dimensions

Bulk operation



Lifting capacities

Bulk operation

Maximum crane capacity 42t

Outreach (m)	Hook operation		Grab operation	
	on the ropes (t)	4-rope grab (t)	motor grab (t)	4-rope grab (t)
8-11	42.0	24.0	30.0	
12	42.0	24.0	29.9	
13	42.0	24.0	26.8	
14	38.1	24.0	24.1	
15	34.3	21.7	21.7	
16	31.0	19.6	19.6	
17	28.2	17.8	17.8	
18	25.8	16.3	16.3	
19	23.8	15.0	15.0	
20	22.0	13.9	13.9	
21	20.5	13.0	13.0	
22	19.2	12.2	12.2	
23	18.1	11.5	11.5	
24	17.1	10.8	10.8	
25	16.2	10.2	10.2	
26	15.4	9.7	9.7	
27	14.6	9.2	9.2	
28	13.8	8.7	8.7	
29	13.1	8.3	8.3	
30	12.3	7.8	7.8	

Weight ramshorn hook 1.5t
Weight rotator 1.5t

Turnover up to 550 t per hour

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

Undercarriage

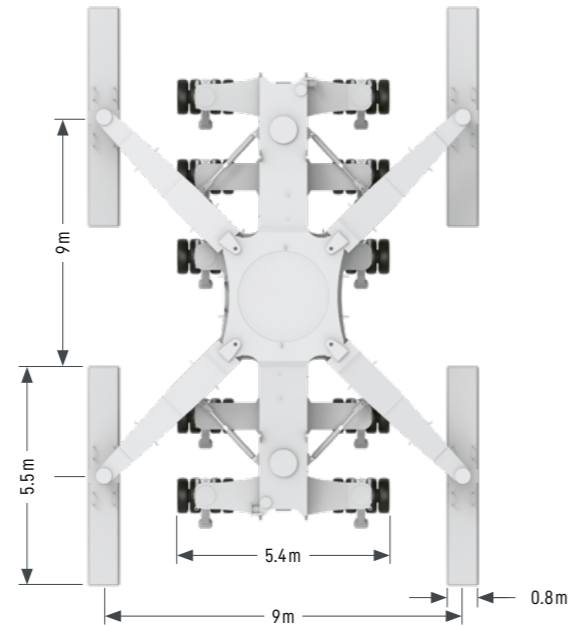
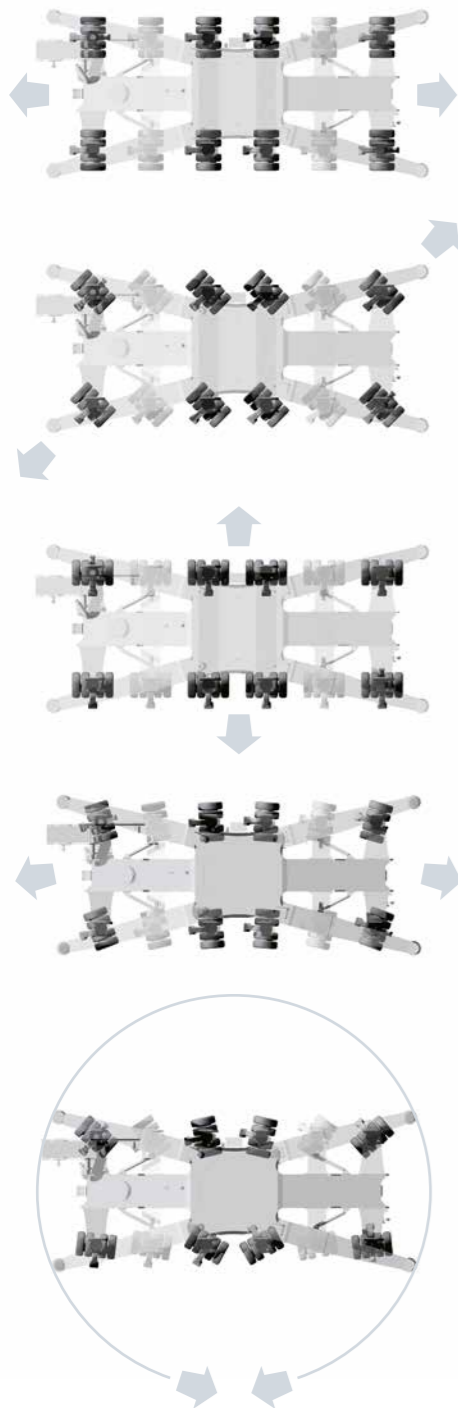
Mobility

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

Modular propping system

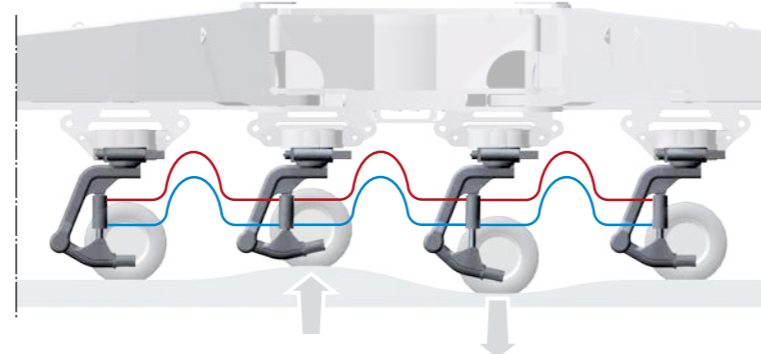
- Minimised stress and strain of undercarriage due to cruciform support base which directs the load path from boom tip to quay
- Modular system allows further reduction of quay loads by installing additional axle sets
- Easy adaptation to various sizes of support pads and bases

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

Technical data

Capacity and Classification

	Capacity	Classification
Four rope grab operation	≤ 24 t	A7
Motor grab operation	≤ 30 t	A6
Container operation	≤ 30 t	A6
Heavy lift operation	≤ 42 t	A4

Main Dimensions

Min. to max. outreach	8 – 30 m
Height of boom fulcrum	10.1 m
Tower cabin height (eye level)	15.2 m
Overall height (top of tower)	19.6 m
Overall length of undercarriage	12.6 m
Overall width of undercarriage	5.4 m

Working Speeds

Hoisting / lowering	0 – 90 m/min
Slewing	0 – 1.6 rpm
Luffing (average horizontal speed)	0 – 52 m/min
Travelling	0 – 5.0 km/h

Propping Arrangements

Standard supporting base	9.0 m x 9.0 m
Standard pad dimension	5.5 m x 0.8 m
Standard supporting area of pads	4.4 m ²
Optional size of supporting pads and bases on request	

Quay Load Arrangements

Uniformly distributed load	1.23 t/m ²
Max. load per tyre	5.2 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 LHM 120	approx. 123 t
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Hoisting Heights

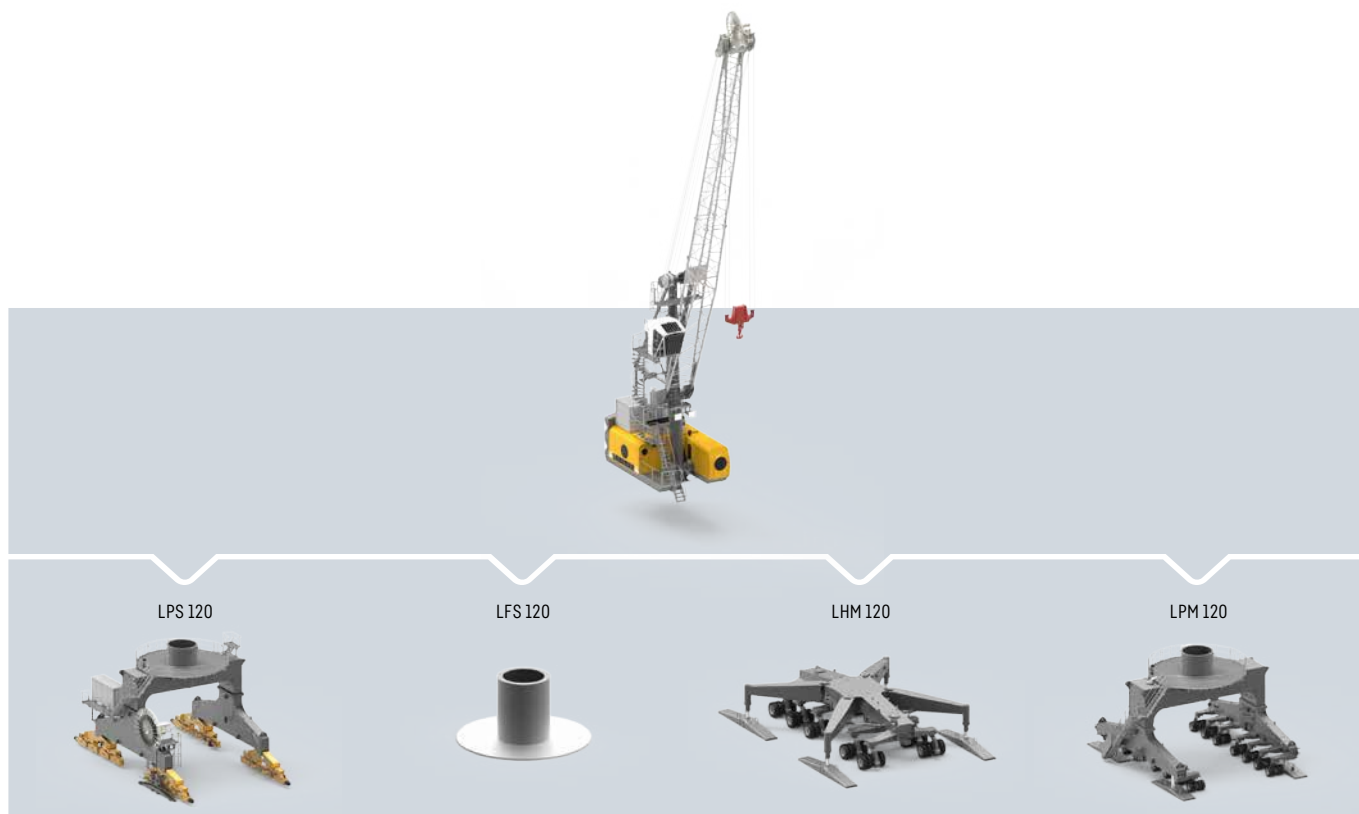
Above quay at minimum radius	34.0 m
Above quay at maximum radius	15.0 m
Below quay level (approx)	13.0 m

Optional equipment

Additional products and services

- Cycoptronic® – anti-sway system
- Teach-In – semi-automatic point to point system
- Sycratronic® – synchronizing crane control system
- Vertical Line Finder – diagonal pull preventing system
- Collision alert system
- 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
- And many more as per customers' requirements

Practical solutions



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.

The Liebherr Portal Mobile Crane (LPM) is the perfect combination of a space-saving portal undercarriage, efficient mobile harbour crane technology and unrestricted mobility. A gantry on rubber tyres enables the crane to be travelled from one quay to another. Supporting pads allow the crane to be used on quays with or without rail tracks. The LPM offers the same 360-degree mobility as the LHM. Driving in longitudinal, diagonal or transverse direction. Performance of conventional steering or slewing on the spot is possible and provided as standard.