

Ship-to-shore gantry crane

Technical description

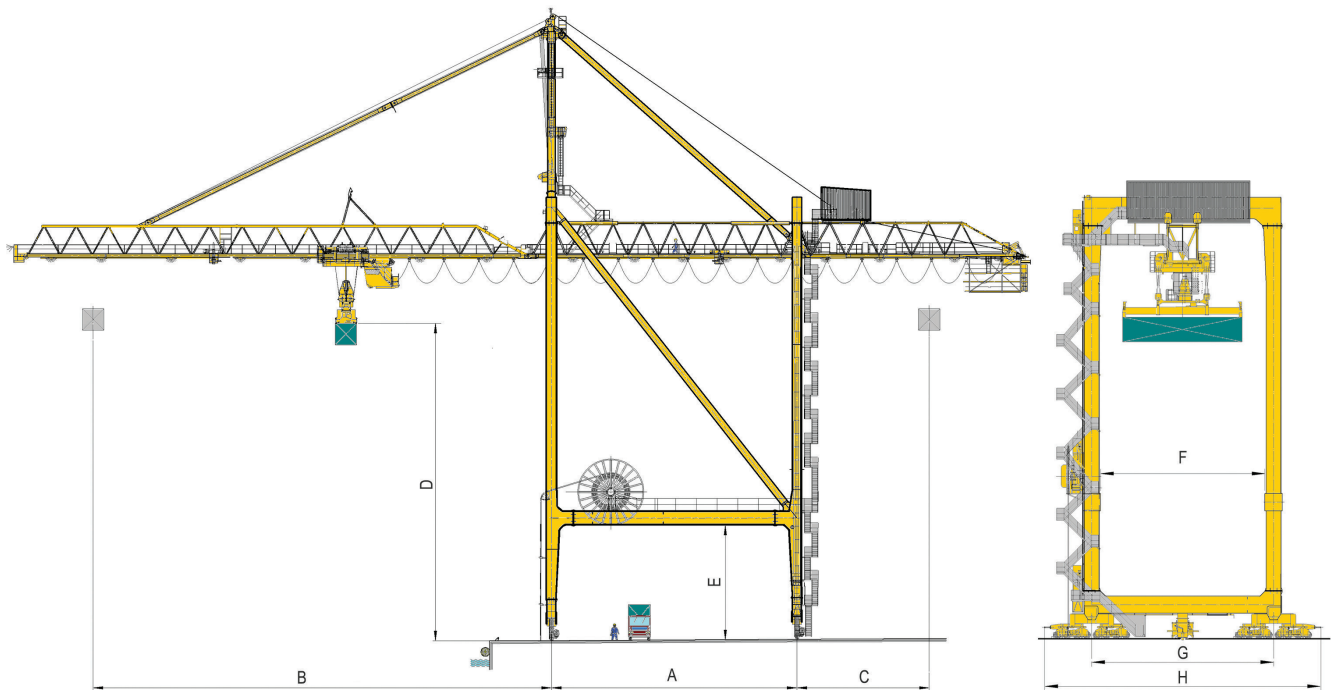
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LIEBHERR

Liebherr Container Cranes Ltd.



Technical data



Crane sizes and technical specifications

	Panamax	Post Panamax	Super Post Panamax	Megamax	Dual trolley
A: Gantry span	15-35 m	15-35 m	15-35 m	15-35 m	30-45 m
B: Outreach	Up to 38 m	Up to 45 m	Up to 55 m	Above 53 m	60-75 m
No of containers across desk	Up to 13	Up to 16	Up to 19	20+	20-25
C: Backreach	0-25 m	0-25 m	0-25 m	0-25 m	20-35 m
D: Lift height	30 m	35 m	40 m	45 m+	40 - 59 m
E: Clearance under sill beam	12-18 m	12-18 m	12-18 m	12-18 m	12-18 m
G: Travel wheel gauge	15-19 m	15-19 m	15-19 m	15-19 m	15-19 m
H: Buffer to buffer	27-36 m	27-36 m	27-36 m	27-36 m	27-36 m
Safe working load	40-50 t single 65 t twin	40-50 t single 65 t twin	40-50 t single 65 t twin 65-80 t tandem	40-50 t single 65 t twin 80-85 t tandem	40-50 t single 65 t twin 80-85 t tandem
Hoisting speed	50/ 125 m/min	60/ 150 m/min	70-175 m/min	80-180 m/min	80-180 m/min
Trolley speed	150-180 m/min	180-210 m/min	210-240 m/min	210-240 m/min	Up to 270 m/min
Travel speed	45 m/min	45 m/min	45 m/min	45 m/min	45 m/min
Wheel load	30-45 t/m*	40-55 t/m*	55-65 t/m*	65-120 t/m*	65-120 t/m*
Wheel spacing **	1-2 m	1-2 m	1-2 m	1-2 m	1-2 m
Wheels per corner**	6-16	8-16	8-16	8-16	8-16
Max. width trolley & main beam/boom	7.6 m	7.6 m	7.6 m	7.6 m	7.6 m

**Dependant on required wheel loads

* Wheel loads based on 8 wheels per corner

Range of STS cranes



Double boom STS

Engineered to offer the ultimate in flexibility. The double boom allows the same STS crane to service both sides of a finger pier, essential when space is at a premium.

Dual trolley STS

The cranes decouple the land and seaside cycles of vessel handling, allowing for increased productivity, exceptional operational flexibility, and increased efficiency.



Articulated boom STS

Articulated boom cranes are the perfect solution when height restrictions are in operation at a port. The unique design eliminates compromise, allowing the cranes to handle some of the world's largest vessels with the same productivity and quality you expect from Liebherr.

Narrow span STS

Liebherr's narrow-span STS crane is ideally suited for utilisation in smaller, older quays. With Liebherr's lightweight lattice boom structure, you can avoid expensive civil works, whilst still taking advantage of Liebherr's premium crane design.



Widespan STS

This multifunction crane handles vessels as well as stacking containers in the span. Ideal for operations where space is at a premium, but flexibility is required.

Liebherr design philosophy

The Liebherr ship-to-shore gantry crane is a high-capacity, single lattice boom crane designed for modern port terminals. The structure uses high strength, optimised components to achieve rapid cycle times and high performance. The design simplifies mechanical solutions, reducing maintenance time and total lifecycle costs.

The integration of the proprietary Liduro drive system provides high energy efficiency and reduces power consumption. All critical components, including switchgear, control systems, and software are developed in-house, ensuring the crane operates on a unified architecture. This eliminates third-party dependencies and ensures full control over quality, compatibility, and long-term technical support.

Supplied as standard

Drive systems and efficiency

- Liduro drive systems: Liebherr design, liquid-cooled drives for consistent performance and durability
- Power regeneration: Active front-end technology to return energy to the grid
- Simultaneous motion: Precision control across three drives for optimised cycles

Structural design

- Mono-lattice boom/beam: Lightweight structure with a low center of gravity
- Trolley rails: Welded-down rails with a refined boom hinge for smooth transitions
- High-strength components: Optimised lattice boom for handling large cargo vessels
- Curve going option

Operations and maintenance

- Anti-sway reeving: Mechanical systems for accurate spreader positioning
- LED lighting: High-efficiency lighting for all-weather operations
- Service access: Simplified structural layouts for ease of maintenance
- Vertical Integration: All hardware and software supplied and supported directly by Liebherr

Sustainable manufacturing and supply chain

At Liebherr Container Cranes, sustainability is built into every stage of our manufacturing and supply chain. Nestled beside Killarney National Park, our facility operates to the highest environmental standards, combining efficiency with responsibility.

Sustainability highlights:

- EcoVadis platinum medal for sustainability
- Signatory to the United Nations Global Compact (UNGC)
- Steel sourced exclusively from certified European mills
- 85% of crane mass is recyclable ferrous material
- VOC emissions cut by 15% through advanced coating systems
- Lubrication-free and hydraulic-free systems eliminate grease use