

Rubber tyre gantry crane

Technical description

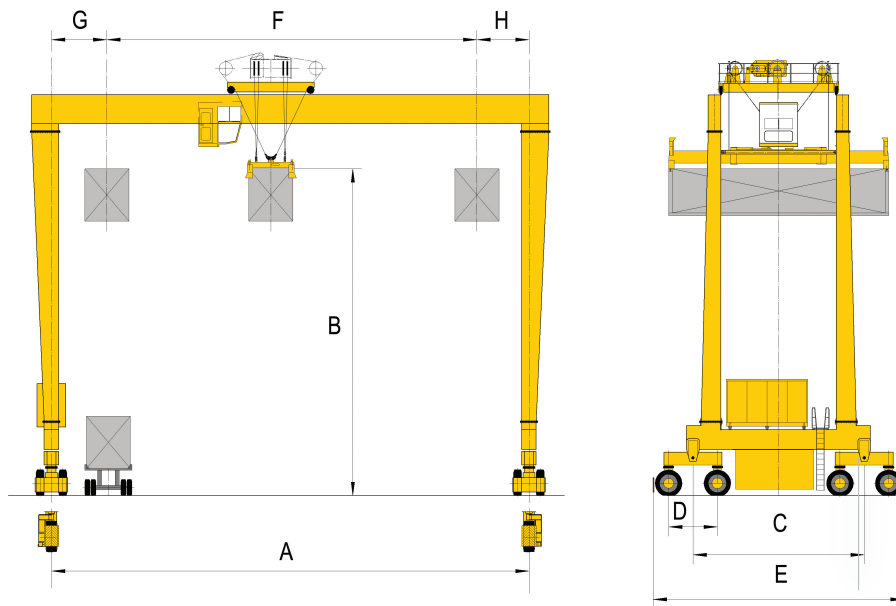
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LIEBHERR

Liebherr Container Cranes Ltd.



Technical data



Crane sizes and technical specifications

RTG model designation		AC drive	Working speeds	
7/5/4	7 containers wide + truck lane	1 over 5 high stacking	Hoisting with no load	60 m/min
	4 wheels per corner		Hoisting with rated load	30 m/min
RTG model range			Trolley travel (with and without load)	70 m/min
A Typical gantry span	20.8 m for 5 wide + truck lane		Gantry travel without load	130 m/min
	23.6 m for 6 wide + truck lane		Gantry travel with rated load	70 m/min
	26.5 m for 7 wide + truck lane		Stack transfer without load	70 m/min
	29.4 m for 8 wide + truck lane		*Alternative speeds also available	
	32.3 m for 9 wide + truck lane		Wheel dimensions and loading	
	37.7 m for 10 wide + truck lane		Tyre size (16 wheel)	14.00-24/16.00-25
RTG model range			Avg./Max. wheel load (model 7/5/4)	12.2 t/17.2 t
B lifting heights	12.3 m for 1 over 3		Drive power	
	15.2 m for 1 over 4		Hoist unit (41 t)	1 X 190 kW AC
	18.2 m for 1 over 5		Trolley unit	2 X 18 kW AC
	21 m for 1 over 6		Gantry travel unit (16 wheels)	4 X 35 kW AC
SWL	41 - 50 t single			
C Travel wheel gauge	9.2 m			
D Rocker length	2.5 m			
E Length over travel guards	13.3 m for 4 wheels per corner			
	13.7 m for 2 wheels per corner			
F Trolley travel	Gantry span minus end approach			
G Trolley end approach	2.4 m			
Trolley end approach	2.25 m			
Typical design parameters				
Classification according to F.E.M	U7-Q2-A7 (Single lift)			
In service wind speed	72-90 km/h (20 m/s)			
Out of service wind speed	151.2 km/h (42 m/s)			
Maximum yard slope	1:50 in either direction			
Self weight (model dependant)	116 t to 138 t			

Power options

When it comes to powering our rubber tyre gantry cranes, we offer a variety of options tailored to meet your specific operational needs. Choose from Electric, hybrid or variable speed diesel.

Electric (conductor bar) ERTG-CB

The ERTG-CB eliminates the need for a genset, with power directly from the electricity grid, ensuring sustainability and low maintenance requirements. An always on connection ensures seamless power and data transmission making the ERTG-CB particularly suited for terminals integrating automation and remote operation technologies.

Hybrid (capacitor) RTG-HC

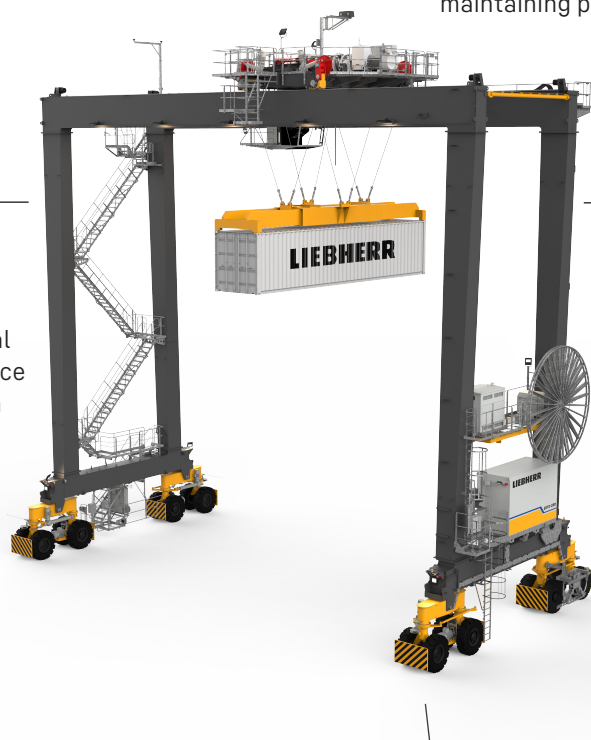
Utilising capacitor technology, the RTG-HC provides immediate energy discharge when required, reducing peak loads on the genset and enabling a smaller engine size for improved fuel efficiency. Electrical energy regenerated during hoist lowering and braking is stored and then used to supplement the power supply, significantly reducing fuel consumption, emissions, and operational costs while maintaining peak performance.

Electric (cable reeling drum) ERTG-CRD

The ERTG-CRD is a flexible, yet fully electric alternative to traditional powered RTGs, significantly reducing operational costs, emissions, and maintenance requirements. A wired, always on connection for power and data ensures no limitations when it comes to automation and remote control.

Hybrid (battery) RTG-HB

The hybrid battery RTG delivers clean, quiet and efficient operation. An onboard genset charges the battery, ensuring low maintenance and running costs, along with significantly reduced emissions. The system achieves substantial fuel savings through the integration of a downsized genset, state-of-the-art battery modules and an advanced power management system



Cross travelling options ERTG

For cross travelling Liebherr recommends the Liebherr LPO 100 cross travel battery. This standalone, high-performance lithium-ion battery is designed for flexibility, with charging on machine or by simply plugging in. The LPO is portable, allowing multiple RTGs to share the same auxiliary power source.

Variable speed diesel RTG-VSG

Variable speed diesel engines are designed to adapt to varying load demands, optimising fuel usage and reducing emissions. By automatically adjusting the engine speed to match the operational requirements, these engines deliver the perfect balance between power and efficiency, minimising operational costs and environmental impact.

Custom automation & remote driving solutions

Building on our proven expertise in bespoke STS automation, Liebherr designs and delivers advanced RTG automation packages. From remote driving to fully automated operation, each solution is engineered around your terminal layout, operating model, and performance targets.

- Intelligent, TOS driven **automated pick and place systems**.
- Advanced stack profiling and spreader tracking, allowing **automated landing** and placement verification.
- **Optimised container routing**, computes shortest collision-free path around stacks, trucks, AGVs and other cranes.
- **Safety access control systems**, with virtual obstacles, safe interlocks and advanced anti-collision systems.
- **Remote operation systems**: Any desk to any crane, redundant fibre networks, optimised job allocation, maximum productivity.
- Liebherr **LiSIM RTG simulator**, enabling advanced operator training before arrival - train anytime, anywhere.

Your benefits

Eight rope reeving system

Total sway and skew elimination in all directions for superior fine positioning and faster duty cycles.

Total cost of ownership

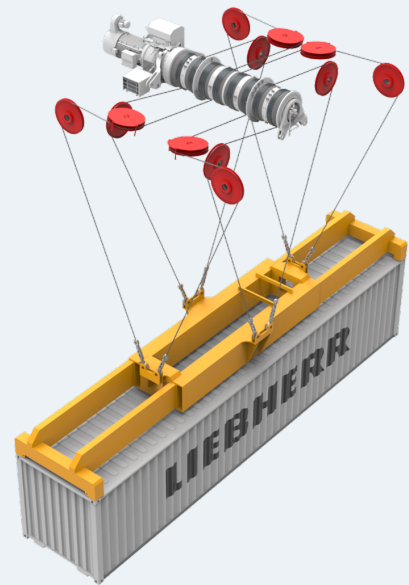
Liebherr RTGs deliver a decisively low TCO through intelligent commonality of components, access systems and high-efficiency design.

Liduro drive systems

In-house developed AC drive controls designed specifically for crane duty, featuring a modular "plug-in" design for rapid fault finding.

Made in Ireland

Built in Ireland, with trusted European parts and decades of experience to ensure exceptional performance, industry-leading productivity, and minimum downtime.



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 performance
- Signatory to the United Nations Global Compact (UNGC)
- Steel sourced exclusively from certified European mills
- 85% of crane mass is recyclable ferrous material
- Only 14% of steel becomes recyclable scrap due to optimised cutting
- Energy-efficient equipment reduces power use by up to 40%
- VOC emissions cut by 15% through advanced coating systems
- Lubrication-free and hydraulic-free systems eliminate grease use
- Diesel forklifts phased out in favour of electric models
- Close collaboration with suppliers to reduce carbon footprint

