Technical Description
Rubber Tyre Gantry Crane
## Technical Data

### RTG Model Designation

**7 / 5 / 4 WS**
- AC drive
- 4 wheels per corner
- 1 over 5 high stacking
- 7 containers wide + truck lane

### RTG Model Range*

| A Typical gantry span | 20.8 m for 5 wide + truck lane |
| B Lifting Heights | 12.3 m for 1 over 3 |
| | 15.2 m for 1 over 4 |
| | 18.2 m for 1 over 5 |
| | 21 m for 1 over 6 |
| SWL | 40.6 - 50 t single | 50 - 65 t twin |
| 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 |
| H Trolley end approach | 2.25 m |

*Other features and dimensions also available

### Working Speeds**

- Hoisting with no load: 56 m/min
- Hoisting with rated load: 28 m/min
- Trolley travel (with and without load): 70 m/min
- Gantry travel without load: 130 m/min
- Gantry travel with rated load: 70 m/min
- Stack transfer without load: 70 m/min

**Alternative speeds also available

### Wheel Dimensions and Loading

- Tyre size (8 wheel): 18.00 - 25 / 21.00 - 25
- Tyre size (16 wheel): 14.00 - 24 / 16.00 - 25
- Avg./Max. wheel load (model 7/5/2): 24.5 t / 34.8 t
- Avg./Max. wheel load (model 7/5/4): 12.2 t / 17.2 t

### Generator Set

- Engine type: Scania / Cummins / Volvo
- Alternator type: Marelli / Stamford
- Diesel fuel tank capacity: 1000 l / 1500 l
- Operating voltage / frequency: 480 V / 60 Hz
- Generator set rating, continuous: 400 kVA

### Drive Power

- Hoist unit (40.6 t): 1 X 190 kW AC
- Trolley unit: 2 X 18 kW AC
- Gantry travel unit (8 wheels): 4 X 35 kW AC
- Gantry travel unit (16 wheels): 4 X 35 kW AC

### Drive Power

Switchgear / control system designed and built by Liebherr using well proven robust components and CMS system in accordance with IEC 61131
**Advantages by Design**

- Minimal spreader positioning times.
- No-sway in hoist, trolley and travel directions.
- Anti-skew.
- Trim and skew spreader positioning.
- No additional ropes or devices necessary.

- No head block - Reduced rope load and tare weight.
- Lower energy consumption.
- All electric spreader - Less maintenance.
- Significant increase in productivity when compared with alternative designs. Minimal spreader positioning times.

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**Gantry Travel System**

**Advantages by Design**

- Direct driven - No chain drive
- Gantry travel with load
- Reduced tyre wear with differential axles allowing wheels to rotate during 90° turn.
- 4 Electric motors, 1 per corner
Liebherr Rubber Tyre Gantry Crane

- Liebherr reeving system: Sway prevention, not sway correction.
- Electric (gantry align) steering.
- Rigid robust structure - Optimum for automation. Optional DGPS auto steering and container positioning.
- Direct gearbox driven travel systems.
- Separate drives for hoist, travel and trolley, with no need for side shift on the spreader. Allows superior fine positioning with simultaneous motion.
- Worldwide Liebherr service network.

- Extensive training (in-house and on-site).
- Purpose built state-of-the-art design and production facilities located in Ireland since 1958.
- Highly skilled and experienced employees with expertise in-house for after sales service.
- Responsibility with Liebherr, eliminating interface and compatibility problems (i.e. structural, mechanical and electrical design, production, commissioning and service).
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