

Terex® Gottwald Mobile Harbour Cranes

Versatile, Economical, Ecologically Compatible



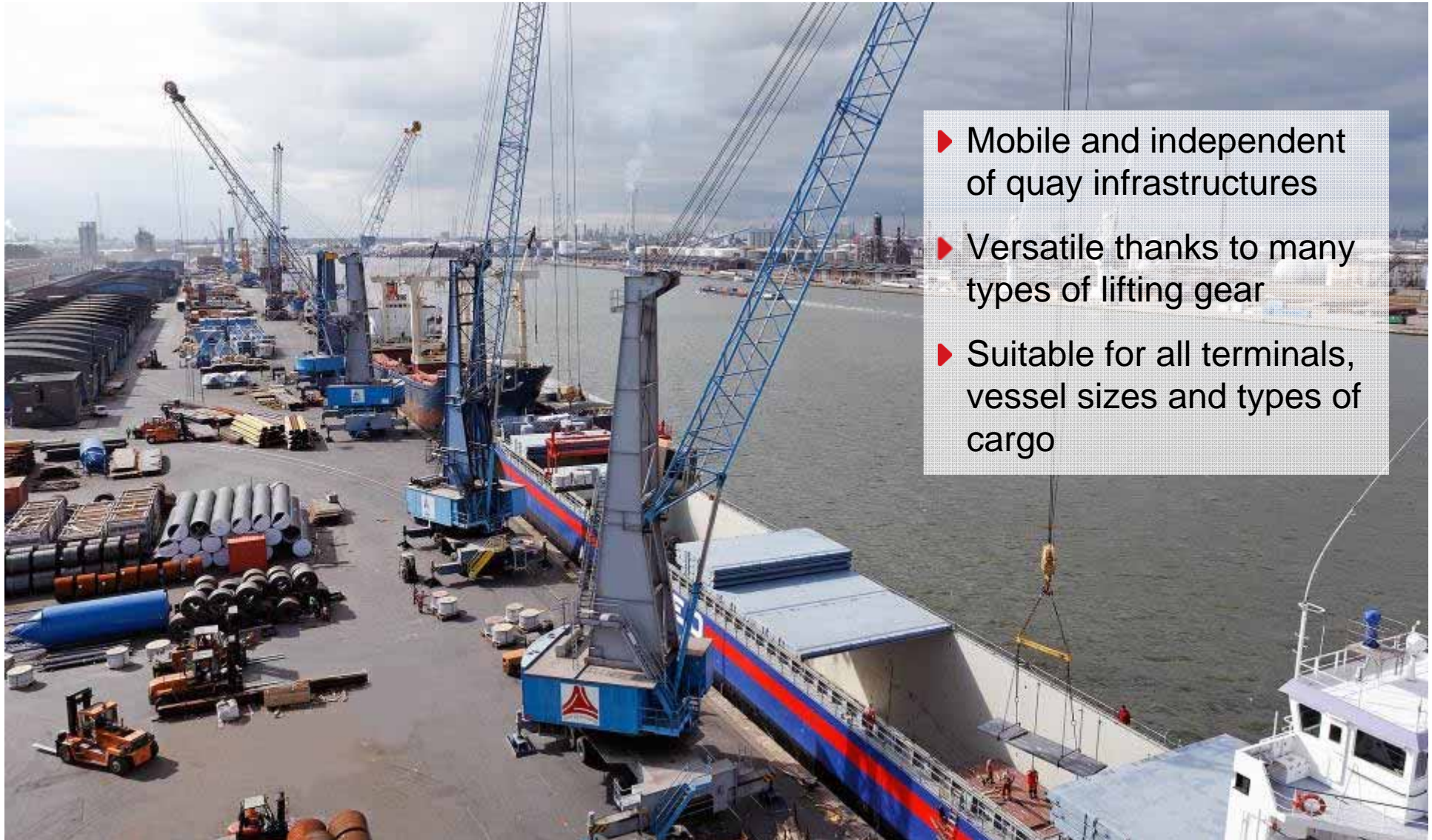
Pacesetter in Mobile Harbour Cranes



- ▶ Invention of the mobile harbour crane some 60 years ago
- ▶ Some 1,800 machines installed in more than 100 countries
- ▶ Outstanding features
 - Mobility
 - Versatility
 - Flexibility
 - Reliability
 - Economy
- ▶ Efficient solution for handling
 - Containers
 - Bulk materials
 - General cargo
 - Project cargo



Advantages of Mobile Harbour Cranes



- ▶ Mobile and independent of quay infrastructures
- ▶ Versatile thanks to many types of lifting gear
- ▶ Suitable for all terminals, vessel sizes and types of cargo

For All Types of Cargo



- ▶ For containers, bulk materials, general and project cargo, including heavy loads
- ▶ Handling rates comparable with custom-built equipment



For Efficient Cargo Handling



- ▶ Low specific investment costs for machinery thanks to modular design
- ▶ Low investment in quay infrastructure due to reduced weight and space requirement
- ▶ Handling rates of up to 1,850 tph*, comparable to custom-built equipment

* Handling rates dependent on terminal and operating conditions

Diesel-Electric Drive System

- ▶ Provides peak energy efficiency and economy
- ▶ External power supply
- ▶ Hybrid drive system



Sturdy Construction



- ▶ Designed to withstand tough conditions
- ▶ Large tyres and maintenance-free equaliser beams
- ▶ Wind-resistant in all weathers

User-Friendly Smart Crane Features



Practically designed functions and features like:

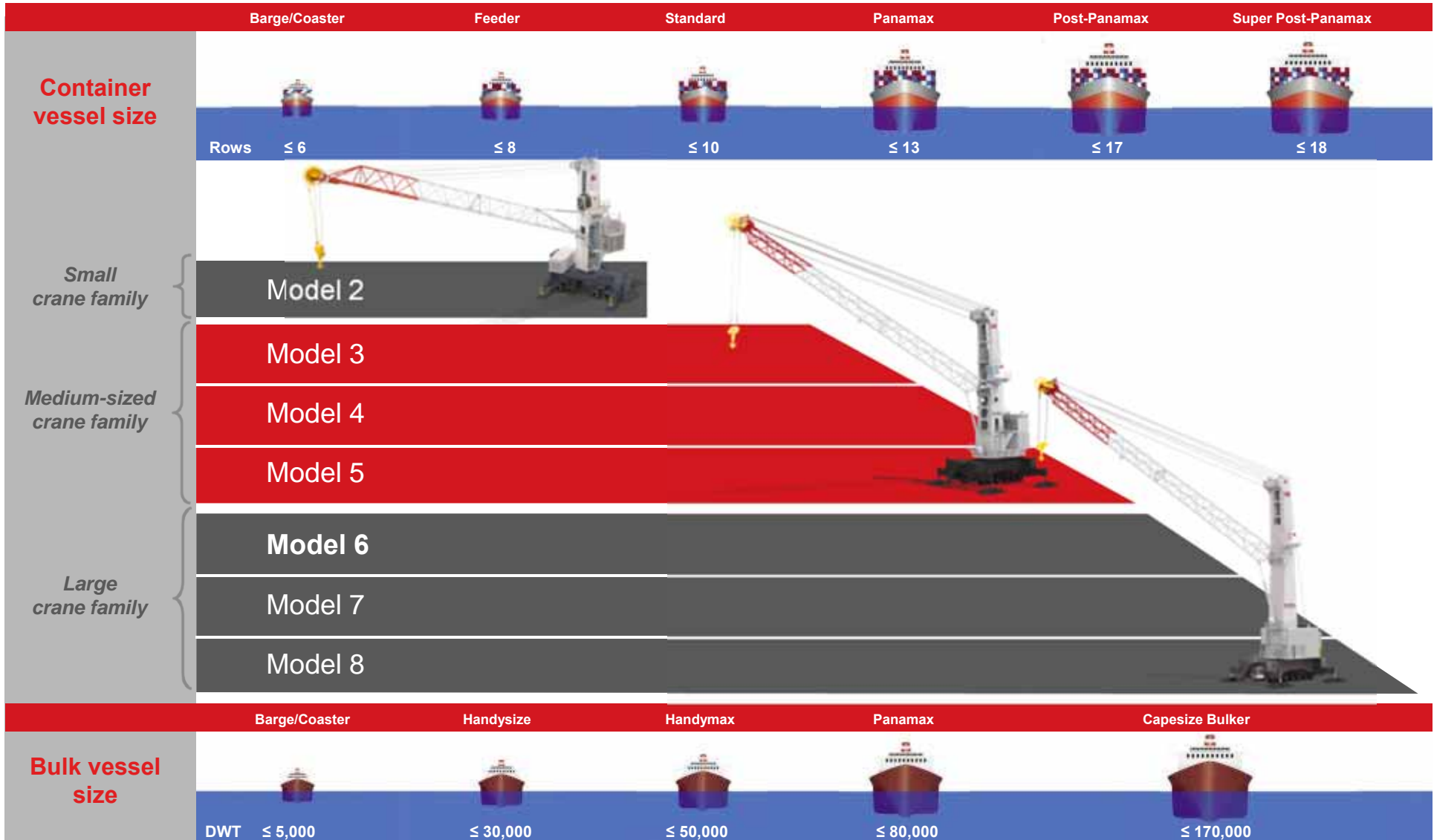
- ▶ Radio remote control
- ▶ Load guidance function
- ▶ Automatic stabiliser system
- ▶ Hoisting height limits
- ▶ Anti-sway package
- ▶ Tandem lift assistant
- ▶ Weighing system

Short Delivery Lead-Times



- ▶ Advance order program
- ▶ Modular design principle
- ▶ Pre-assembled transport
- ▶ Erection on site

Harbour Crane Range



Harbour Crane Types



Mobile Harbour Crane



Rubber-Tyred Portal Harbour Crane



Floating Crane



Portal Harbour Crane



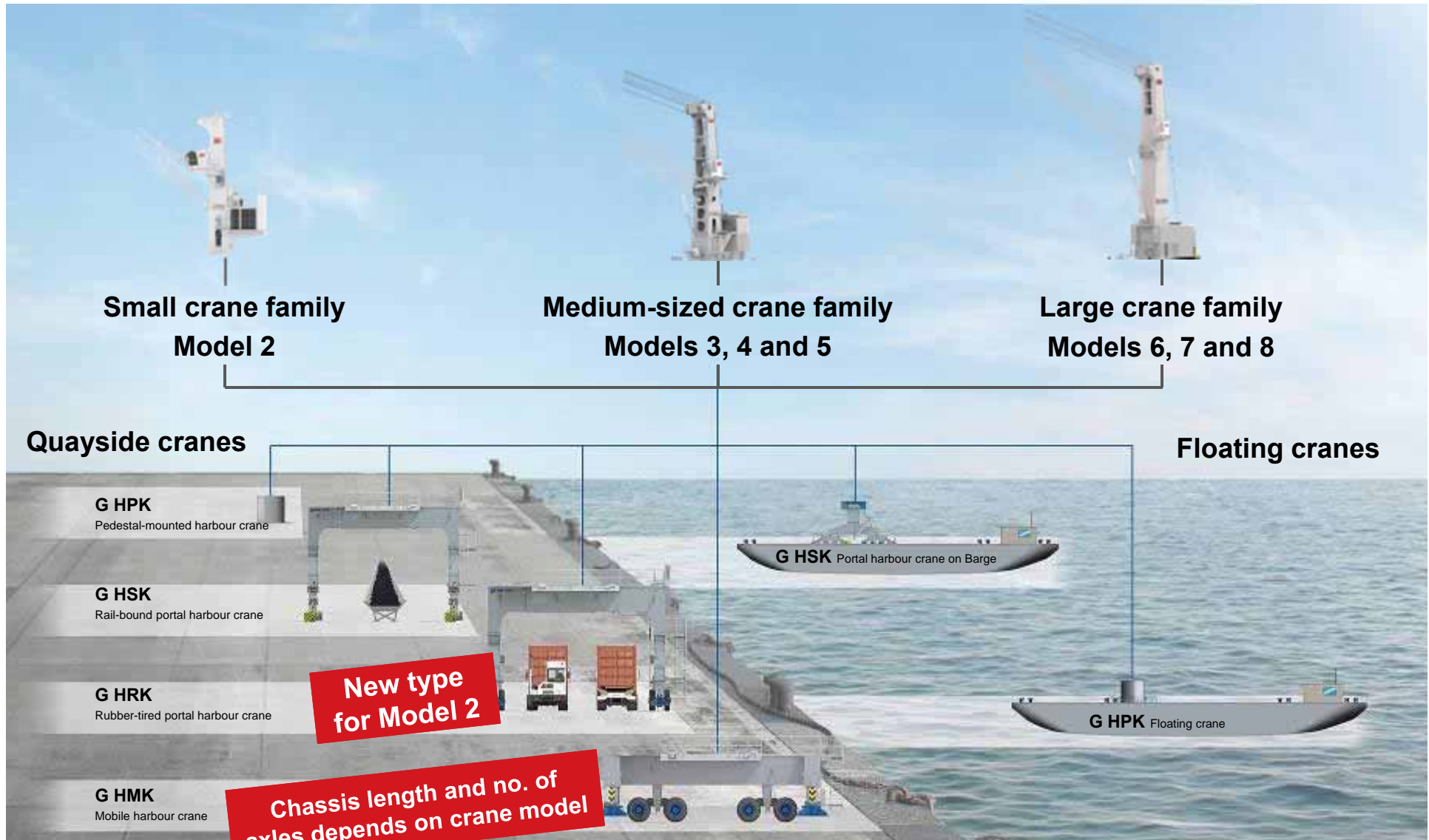
Based on Proven Technology



- ▶ Adapted as
 - Portal harbour cranes
 - Floating cranes

- ▶ Same components from the slewing ring upwards

Modular Design of Harbour Cranes





Terex® Quaymate M50 Mobile Harbour Crane

A Great Mate For Small Ports

Typical Handling Equipment Found in Small Ports



These machines often don't offer the necessary harbour crane design features (selection)

- ▶ No parallel load curve during luffing.
- ▶ Boom pivot point is too low because it is not above the side of the ship.
- ▶ No elevated cabs, operators have a poor view into the ship's hold.
- ▶ No sufficient drive power: The crane is too slow, the ship's berthing time is too long.
- ▶ Service life (load cycles to the point of fatigue) is poor. Harbour cranes have a calculated service life 8 –10 x longer than construction cranes.
- ▶ No torsionally stiff steel structures.
- ▶ Hoist and luffing gear are not electrically but hydraulically driven.
- ▶ Stairway to cab is located outside the tower. No weatherproof ascent for operators.

In the absence of affordable professional equipment many ports are using unsuitable cranes

Why not Start with the Right Tool?



A tool, which makes port and terminal operators' life much easier

With the New Terex® Quaymate M50



Advantages of Terex® Quaymate M50



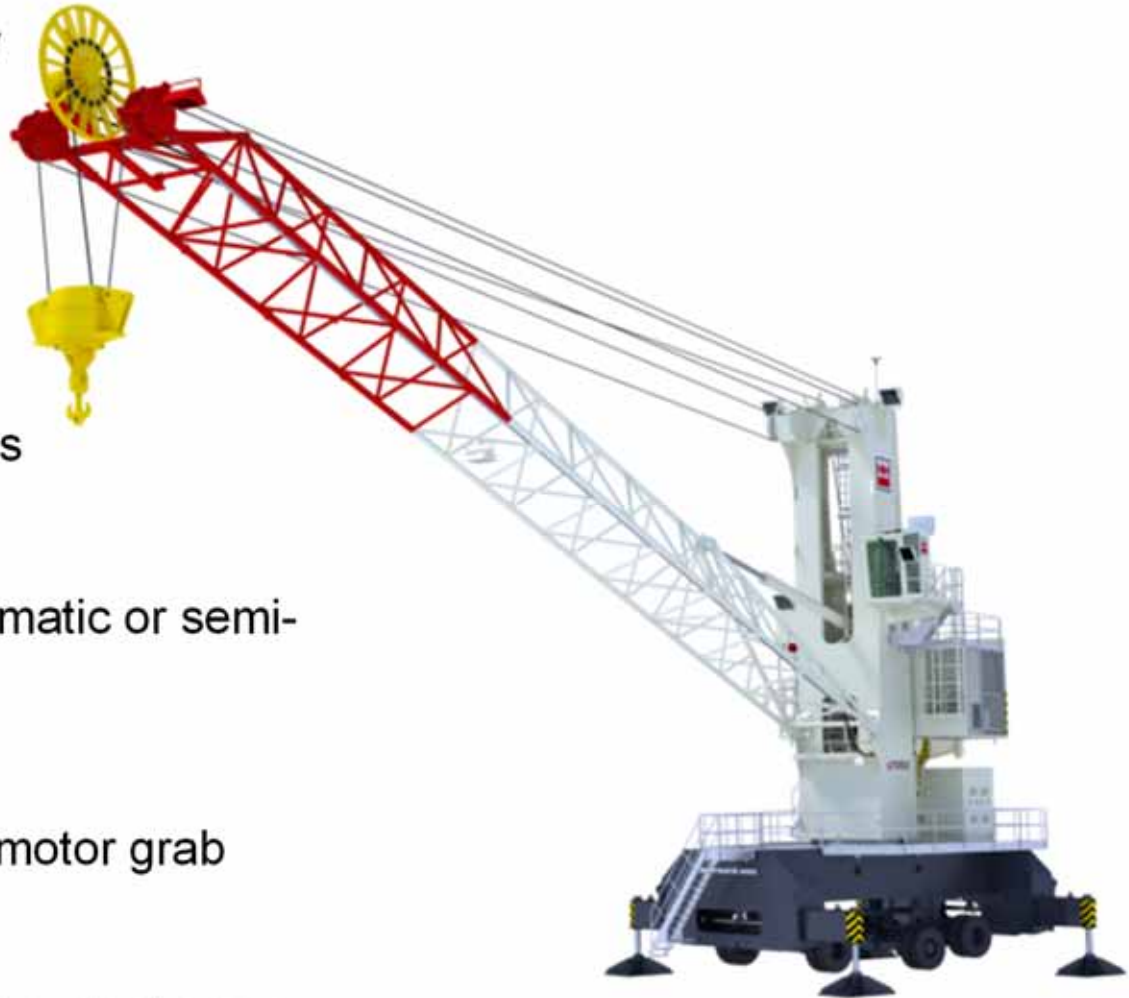
- ▶ Terex Port Solutions (TPS) responds to the needs for an entry model for small maritime & river ports
- ▶ These ports want to unlock their potential and like to grow
- ▶ Therefore they require a machine:
 - For light to medium-duty utilization
 - With continuous-shift capability
 - With life-cycle rating to match the application
 - With cost-effective high output
 - Which complies with limited investment budgets
- ▶ Terex® Quaymate M50 crane helps smaller ports to break through
- ▶ The Quaymate M50 mobile harbour crane outperforms telescopic, crawler and stationary cranes and excavators by proven mobile harbour crane technology



Quaymate M50 – At A Glance



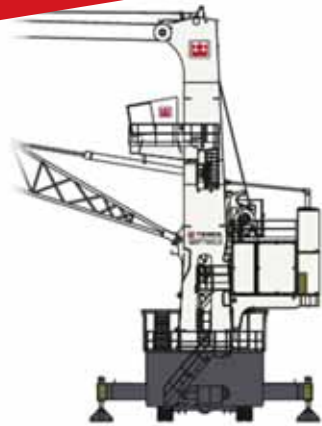
- ▶ Impressive lifting capacity curve
 - 50 t maximum lifting capacity
 - 36 m maximum radius
- ▶ 50 m/min maximum hoisting speed
- ▶ Suitable for barges & coasters
- ▶ Handles containers with automatic or semi-automatic spreaders
- ▶ Handles bulk and scrap with motor grab
- ▶ Loads and unloads general & project cargo



TPS Harbour Crane Families



Terex® Quaymate M50 mobile harbour crane is based on the proven design of the Terex® Gottwald small crane family



*Small crane family
(Model 2)*

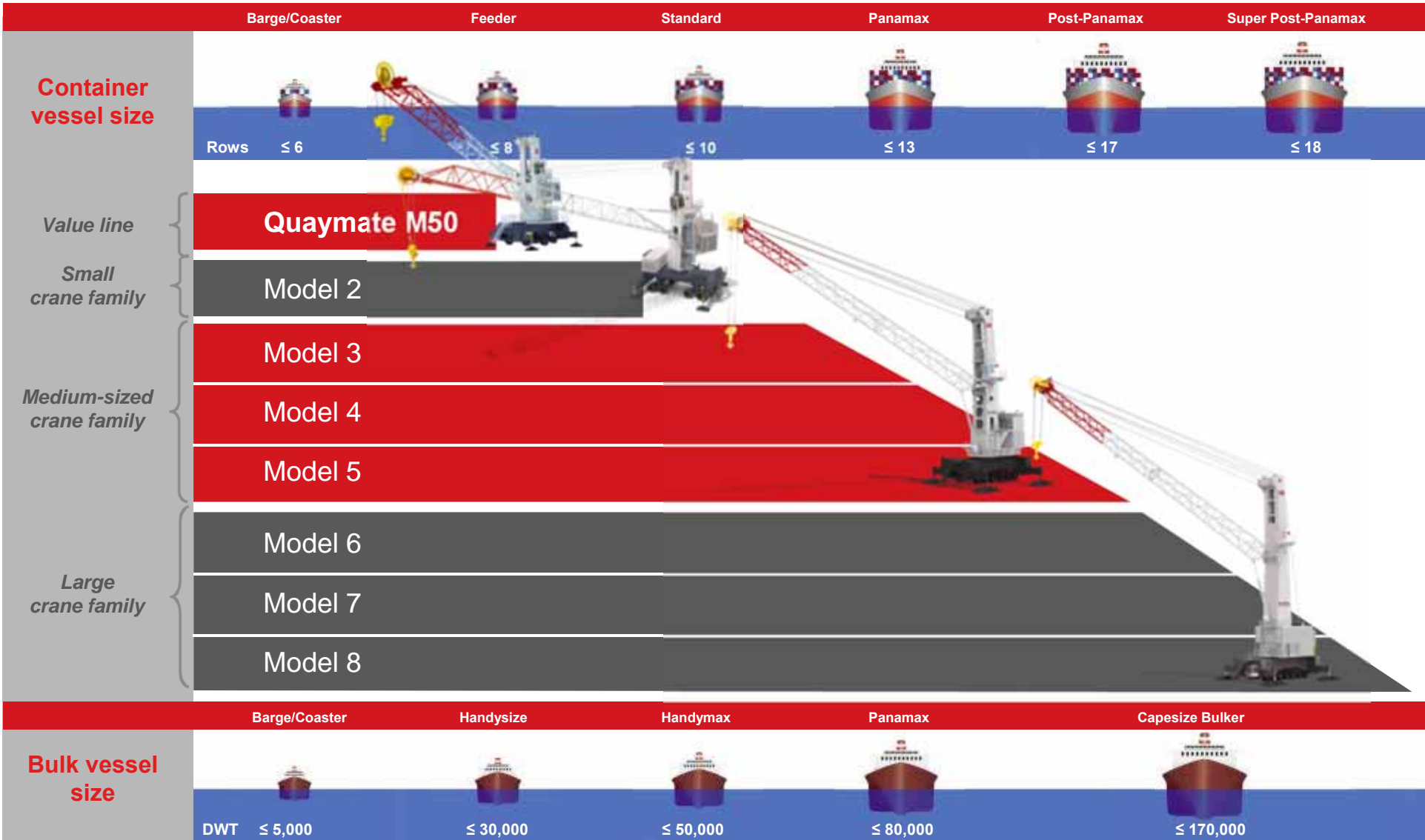


*Medium-sized crane family
(Models 3, 4, 5)*

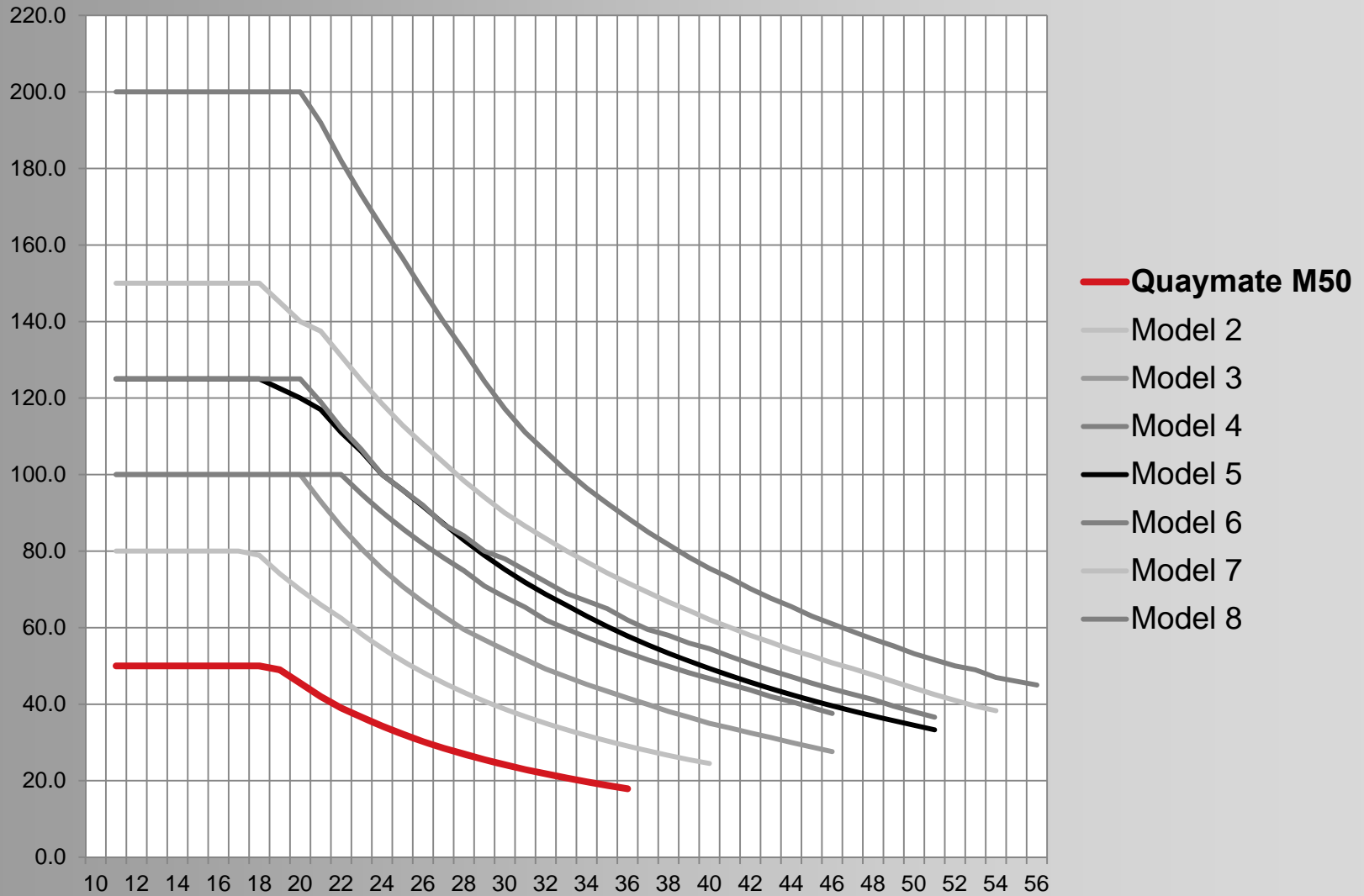


*Large crane family
(Models 6, 7, 8)*

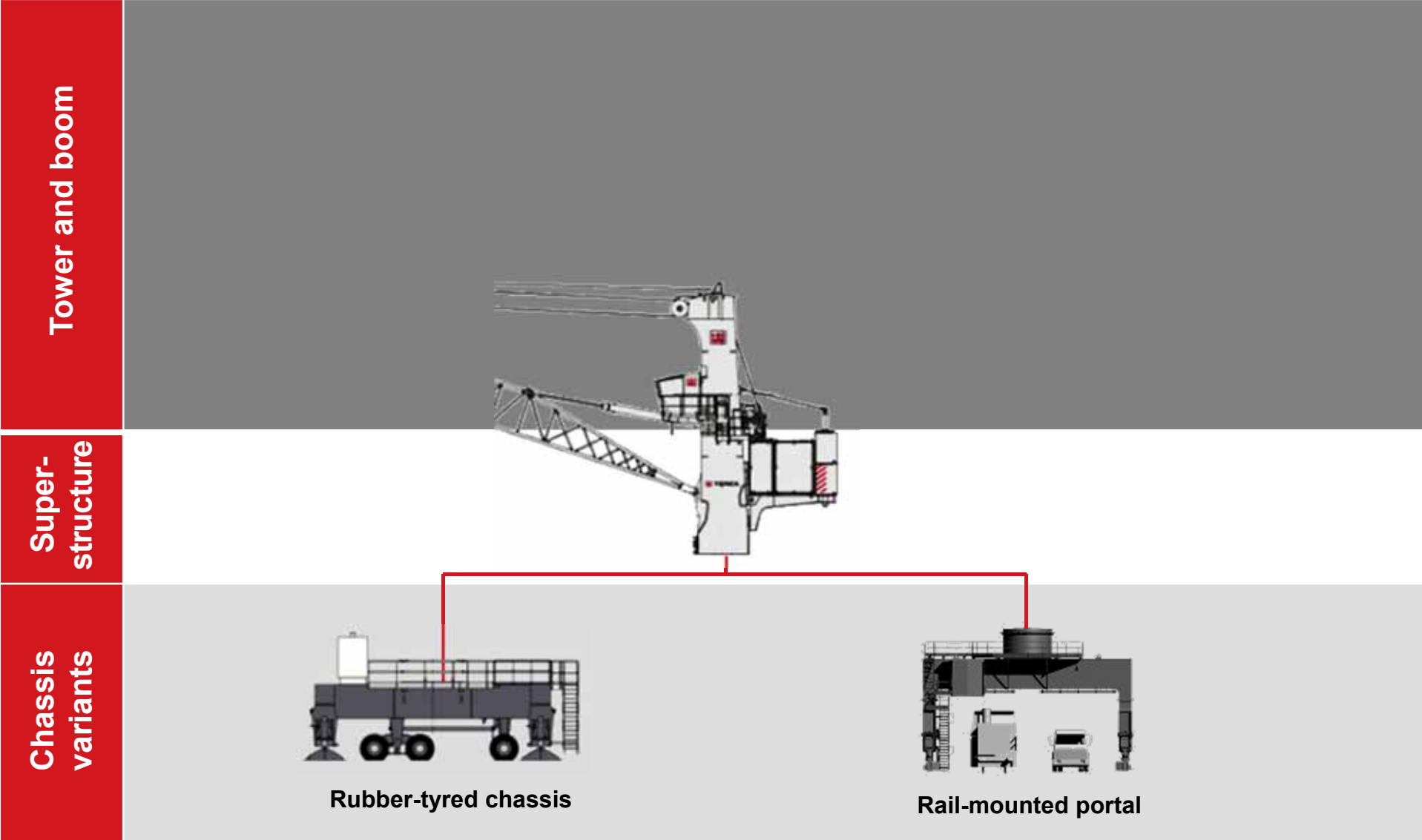
TPS Harbour Crane Range



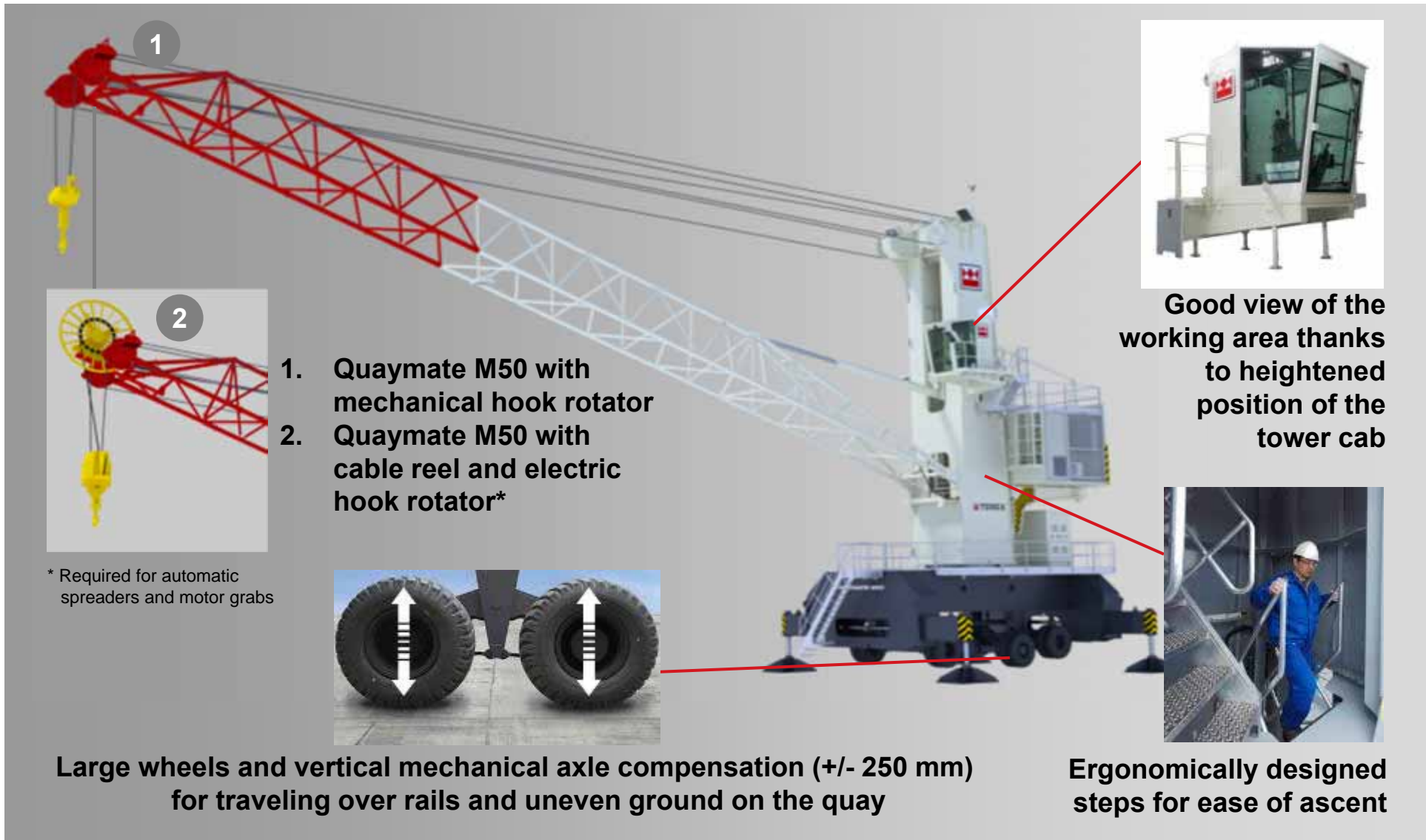
Lifting Capacity Curves



Modular Design Principle



Practically Oriented



1

2

1. Quaymate M50 with mechanical hook rotator
2. Quaymate M50 with cable reel and electric hook rotator*

* Required for automatic spreaders and motor grabs

Good view of the working area thanks to heightened position of the tower cab

Large wheels and vertical mechanical axle compensation (+/- 250 mm) for traveling over rails and uneven ground on the quay

Ergonomically designed steps for ease of ascent

Superstructure



Easily accessible hoist driven through AC motors with optional enclosure



Hydraulics room with main pump and tank



Generously sized electrics room



Slewing gear drive using AC motors



Diesel-powered generator in weatherproof, sound-insulated housing



Platform on rear of the tower with machinery house



Quaymate M50 – In A Nutshell

- ▶ For handling of all kind of cargo
- ▶ Mobile, robust & compact
- ▶ Powerful lifting capacities over the entire working area
- ▶ Electrically driven, economical and 'green'
- ▶ For light to medium-duty utilization
- ▶ Cost-effective working speeds
- ▶ Life-cycle rating to match the application
- ▶ Easy to service



There is an Opportunity for Operators
to Start with the Right Tool ...



Terex® Quaymate M50



Lifting Capacity in Tonnes



Operating modes	Heavy load	General cargo	Container*		Motor grab
			Spreader 1	Spreader 2	
Radius [m]					
11-18	50.0	40.0	35.0	32.2	20.0
19	49.0	40.0	35.0	32.2	20.0
20	45.5	40.0	35.0	32.2	20.0
21	42.0	40.0	35.0	32.2	20.0
22	39.0	39.0	35.0	31.2	20.0
23	36.6	36.6	34.3	28.8	20.0
24	34.3	34.3	32.0	26.5	20.0
25	32.2	32.2	29.9	24.4	20.0
26	30.2	30.2	27.9	22.4	20.0
27	28.5	28.5	26.2	20.7	20.0
28	27.0	27.0	24.7	19.2	20.0
29	25.5	25.5	23.2	17.7	18.8
30	24.2	24.2	21.9	16.4	17.8
31	22.9	22.9	20.6	15.1	16.9
32	21.8	21.8	19.5	14.0	16.1
33	20.7	20.7	18.4	12.9	15.3
34	19.7	19.7	17.4	11.9	14.5
35	18.8	18.8	16.5	11.0	14.0
36	17.9	17.9	15.6	10.1	13.5

Heavy load and general cargo mode on hook. Container operation below spreader.

* Spreader 1 = Semi-automatic 40' spreader (2,3 t)
 Spreader 2 = Bromma EH 12U (7,8 t)

Do you have any questions?
Feel free to ask