



Terex® Gottwald Model 6 Harbour Crane

A Combination of Power and Functionality

Model 6 Harbour Crane



Model 6 – At A Glance

▶ High performance and handling rates

- Lifting capacities up to 125 t
- Maximum working radius 51 m
- Maximum hoisting speed 120 m/min

▶ Suitable for

- Container ships up to post-Panamax size
- Bulk carriers up to Capesize

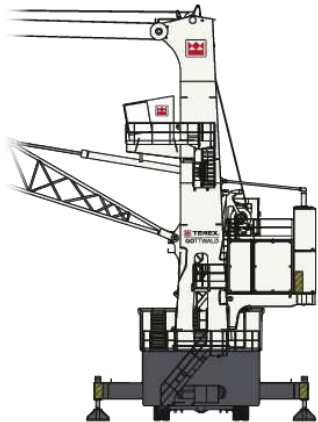
▶ Short delivery lead-times

▶ All-round cargo-handling machine

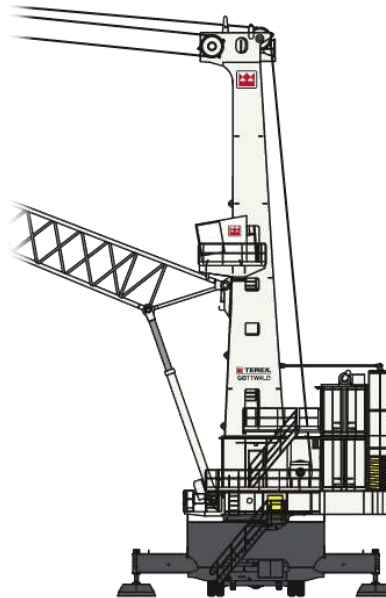


Harbour Crane Families

Terex® Gottwald Generation 5 cranes –
the right crane configuration for every situation



*Small crane family
(Model 2)*

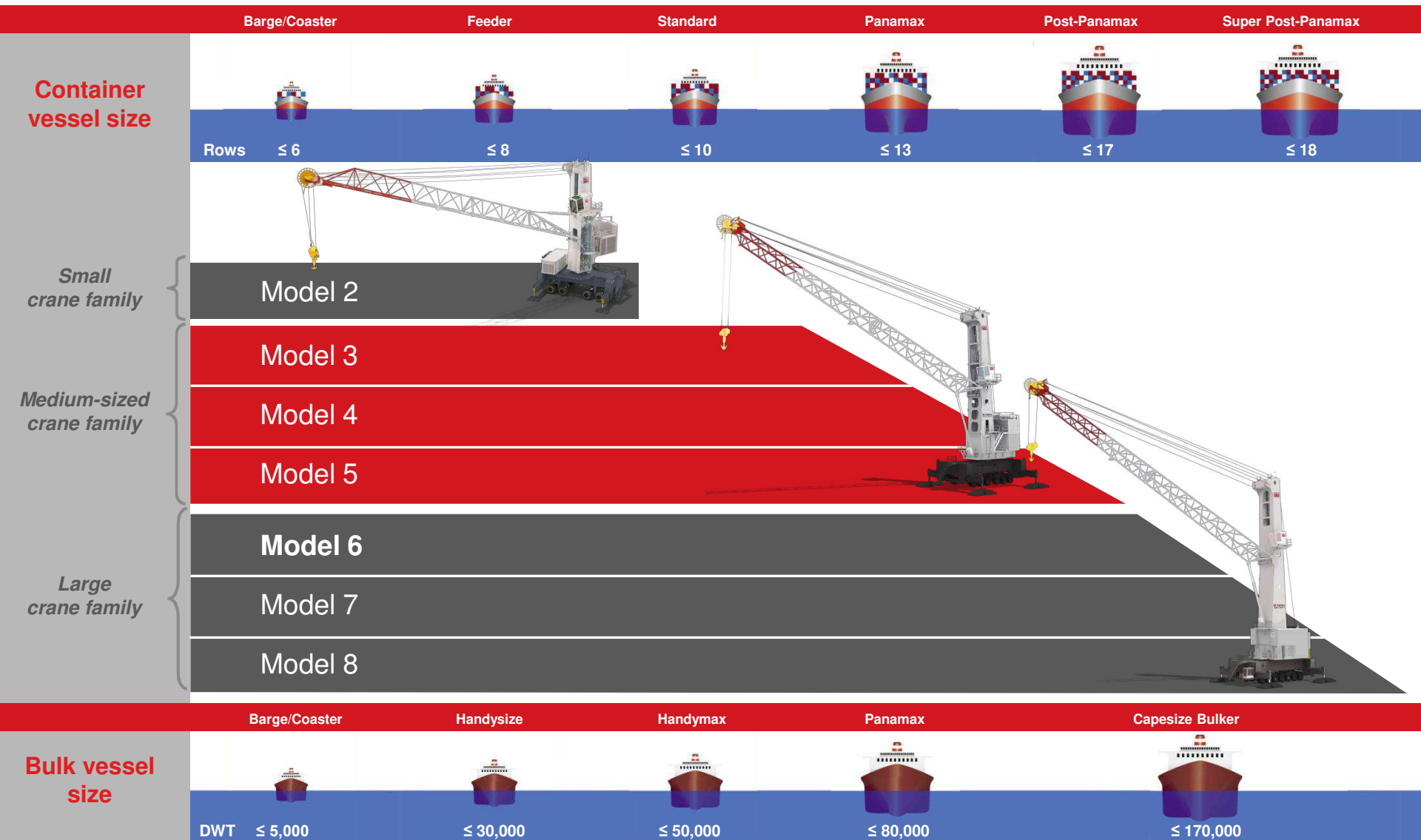


*Medium-sized crane family
(Models 3, 4, 5)*

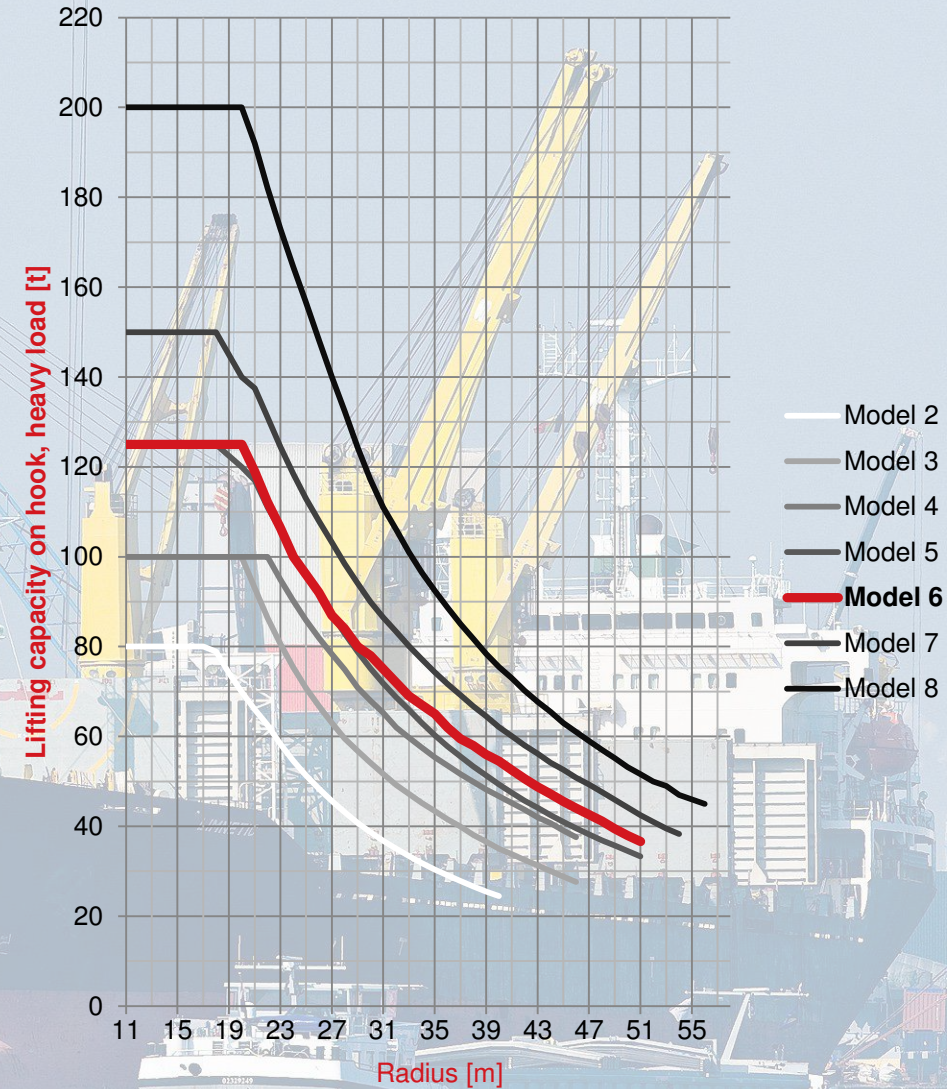


***Large crane family
(Models 6, 7, 8)***

Harbour Crane Range



Lifting Capacity Curves



Model 6 – Types and Variants

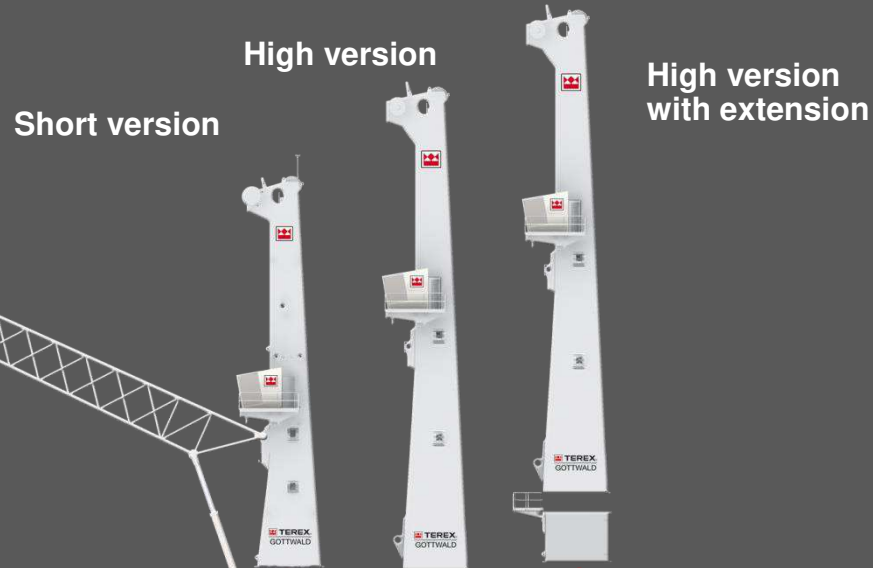
Crane type	Variant	Max. lifting capacities [t]				Max. hoisting speeds [m/min]		Max. radius [m]
		100*	120*	100	125	110	120	
		100* 50**	120* 50**	100	125	110	120	51
G HMK (G HSK) (G HPK)	6507				●		●	●
	6407			●			●	●
	6507 B		●			●		●
	6407 B	●				●		●

* Heavy-load operation

** A7 classification, 40-t grab curve in A8 classification

Modular Design Principle

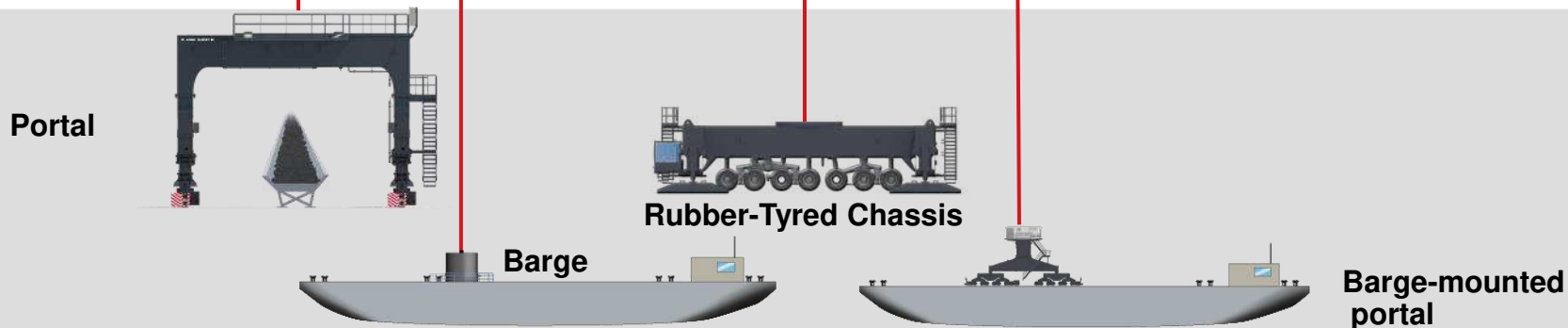
Tower and boom



Super-structure



Chassis variants

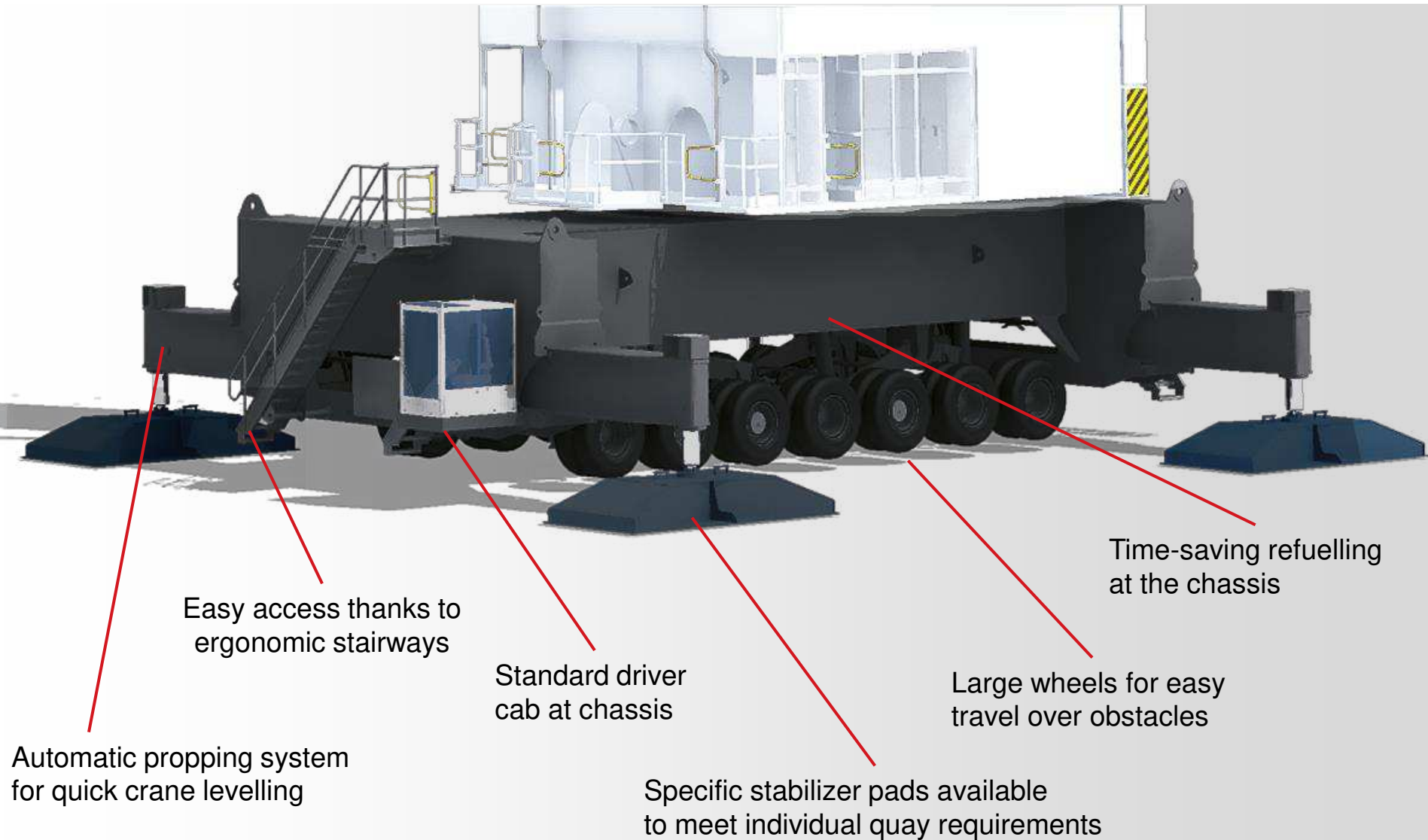




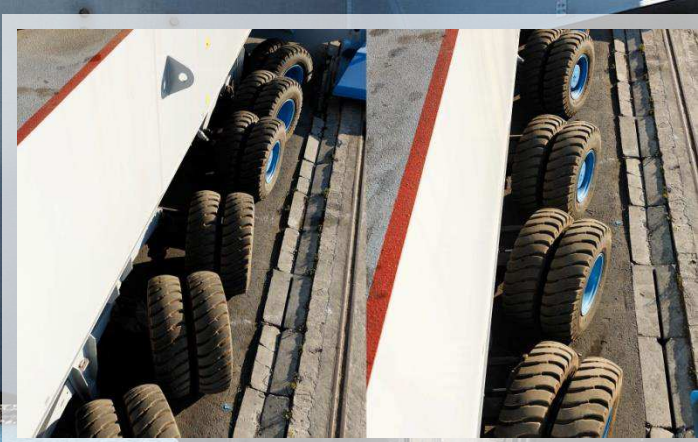
A Closer Look at Our Innovative Technology



Chassis – Overview



Chassis – Excellent Maneuverability



- ▶ Individually steered axles
- ▶ Reduced curve radii
- ▶ Crab steering for easy positioning
- ▶ Maintenance-free equalizer beams for even load distribution



Chassis – Optional Features

Interlocking stabilizer beams

- ▶ Interlocking-type stabilizer beams reduce passage width by approx. 700 mm
- ▶ Stabilizer pads can be removed for minimum passage width
- ▶ Optionally, pads can be located on side of the chassis



Customized propping pads

- ▶ For quays with restricted permissible contact pressure
- ▶ Adapt load to static requirements of quay
- ▶ Range of customized pads available
- ▶ Individual design possible for very specific requirements
- ▶ Pad design can also further reduce passage width of crane



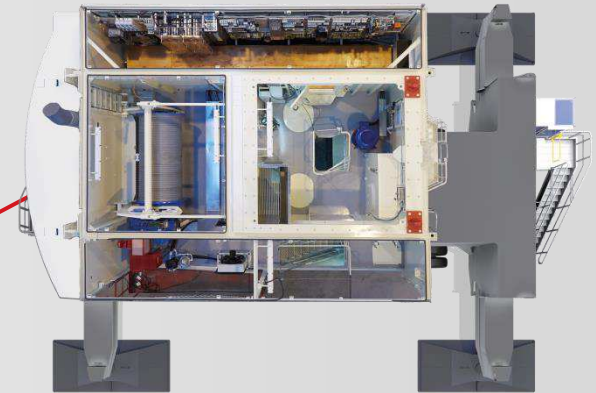
Special chassis designs

- ▶ Meet individual customer requirements, e. g.
 - ▶ Low permissible quay loads
 - ▶ Specific quay structure
- ▶ Special features, e.g.
 - ▶ Type of axle set
 - ▶ Spacing of axle sets
 - ▶ Number of axle sets

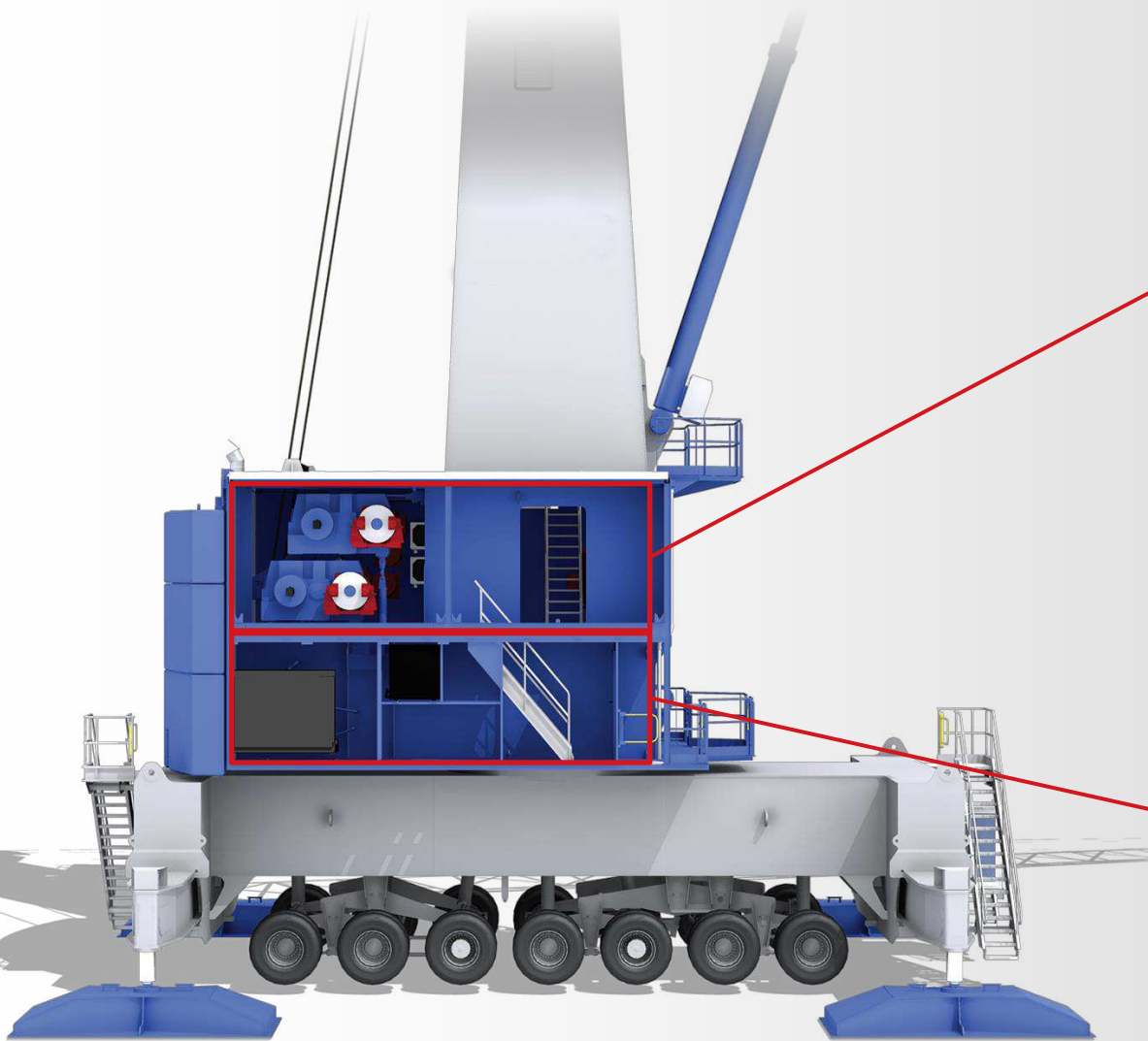
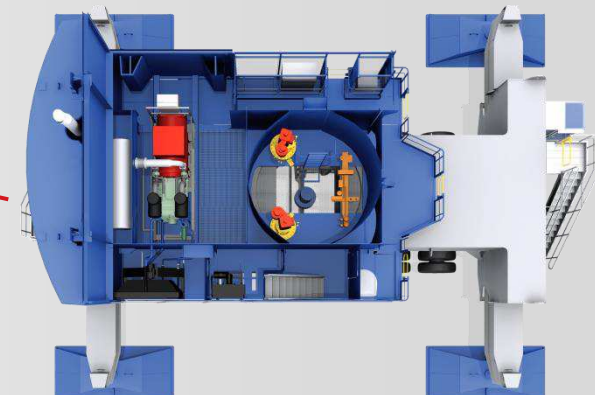


Two Floor Superstructure

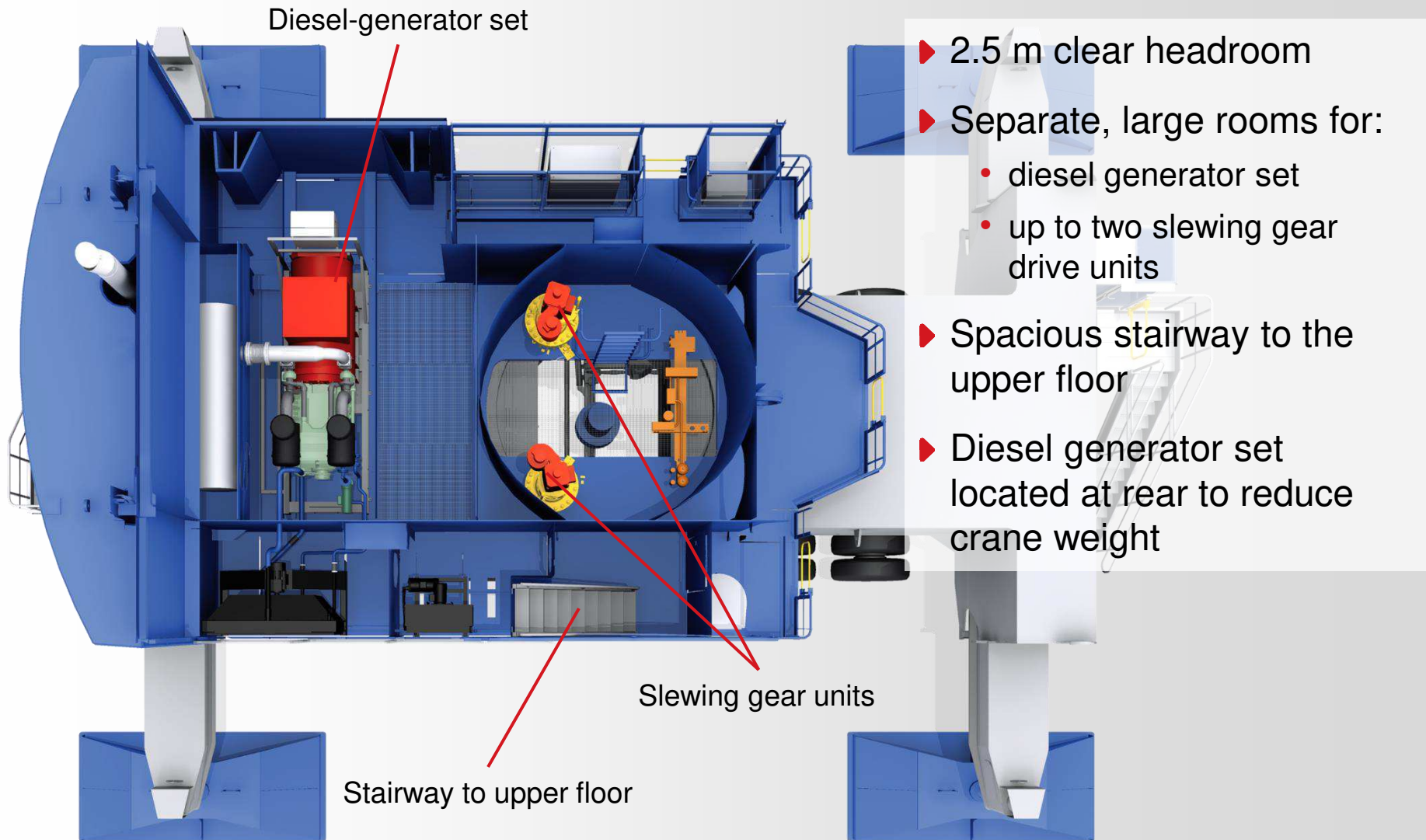
Top floor



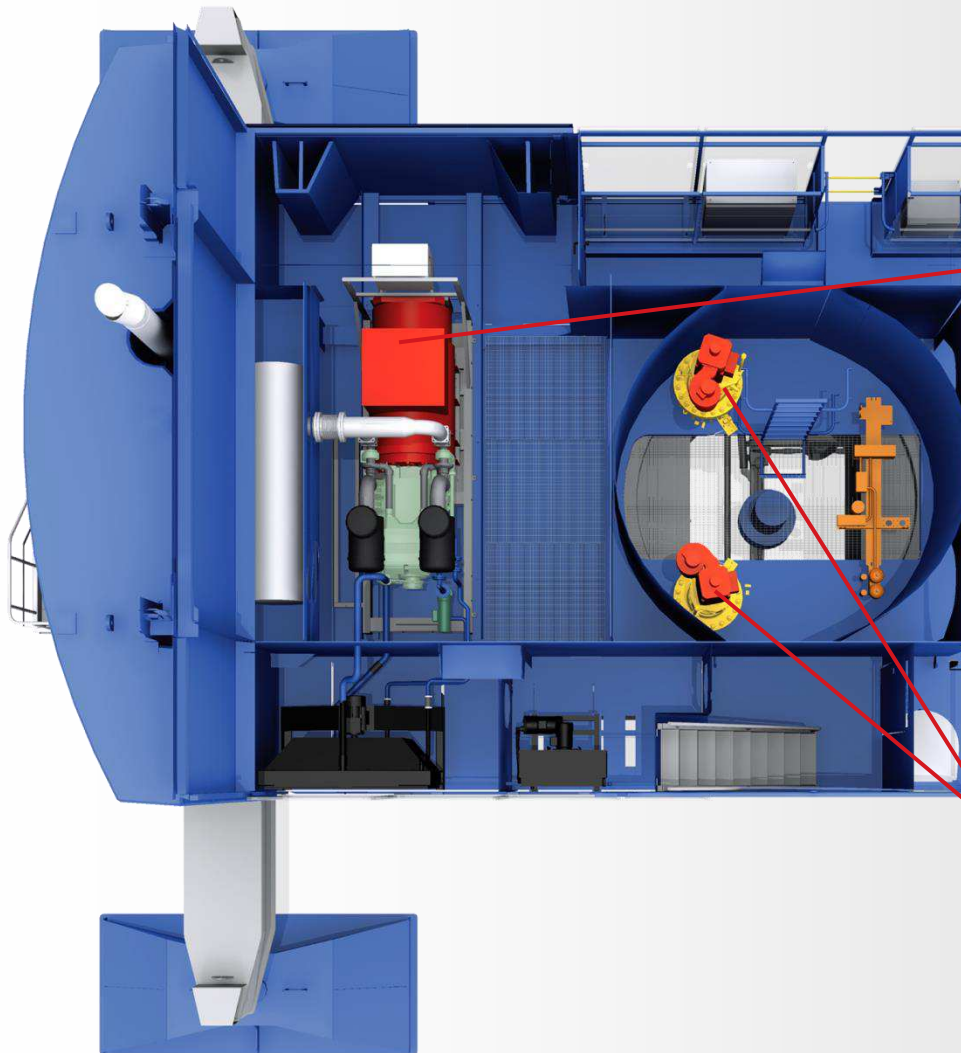
Lower floor



Lower Floor – Overview



Lower Floor – In Detail



Diesel generator



- ▶ Mounted on slide
- ▶ Day tank located next to generator; automatic refilling from main tank
- ▶ Power based on variant and application

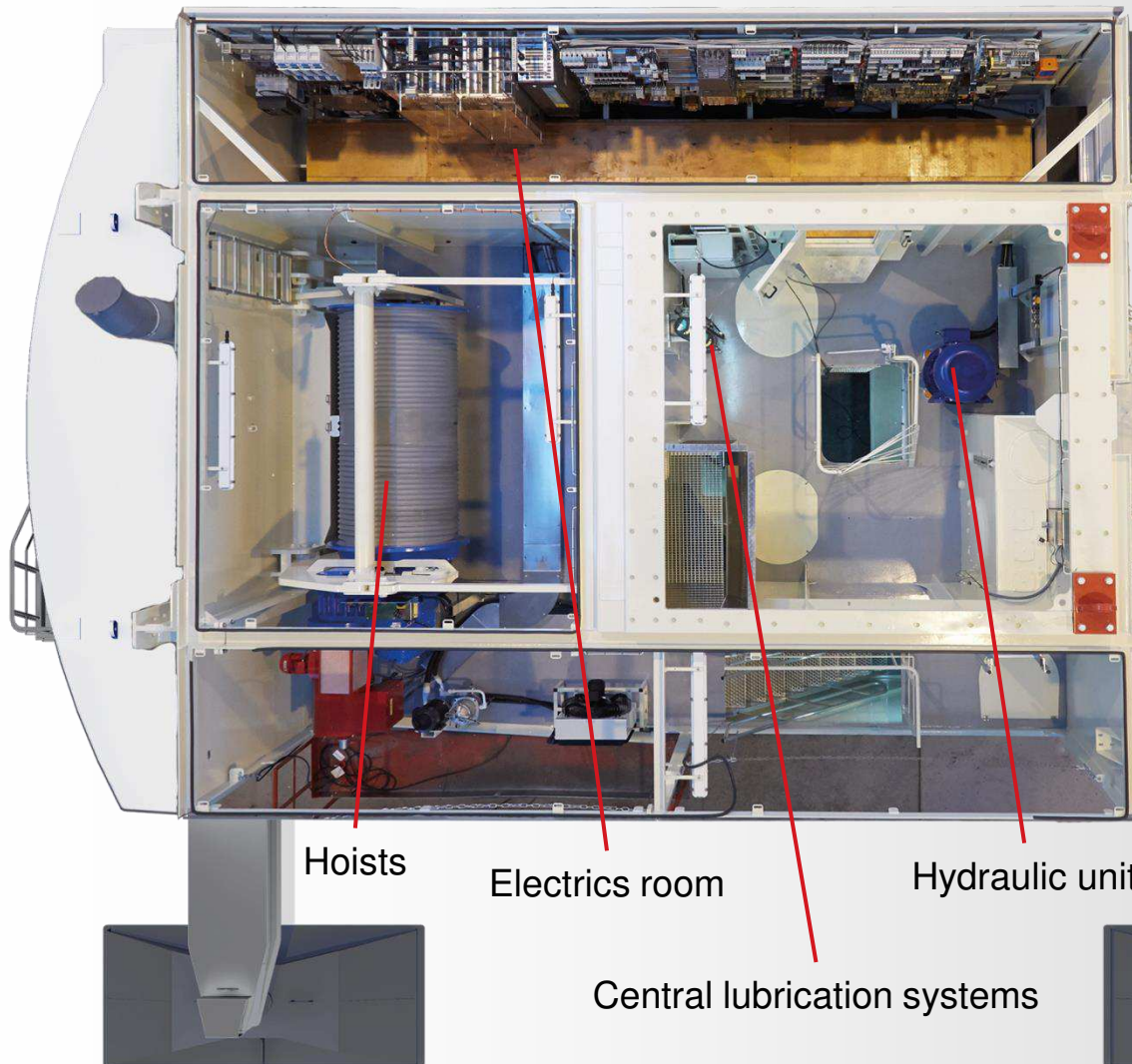
Slewing gear units



- ▶ Number of units as required for variant and application
- ▶ Three-phase* drive for smooth acceleration and deceleration

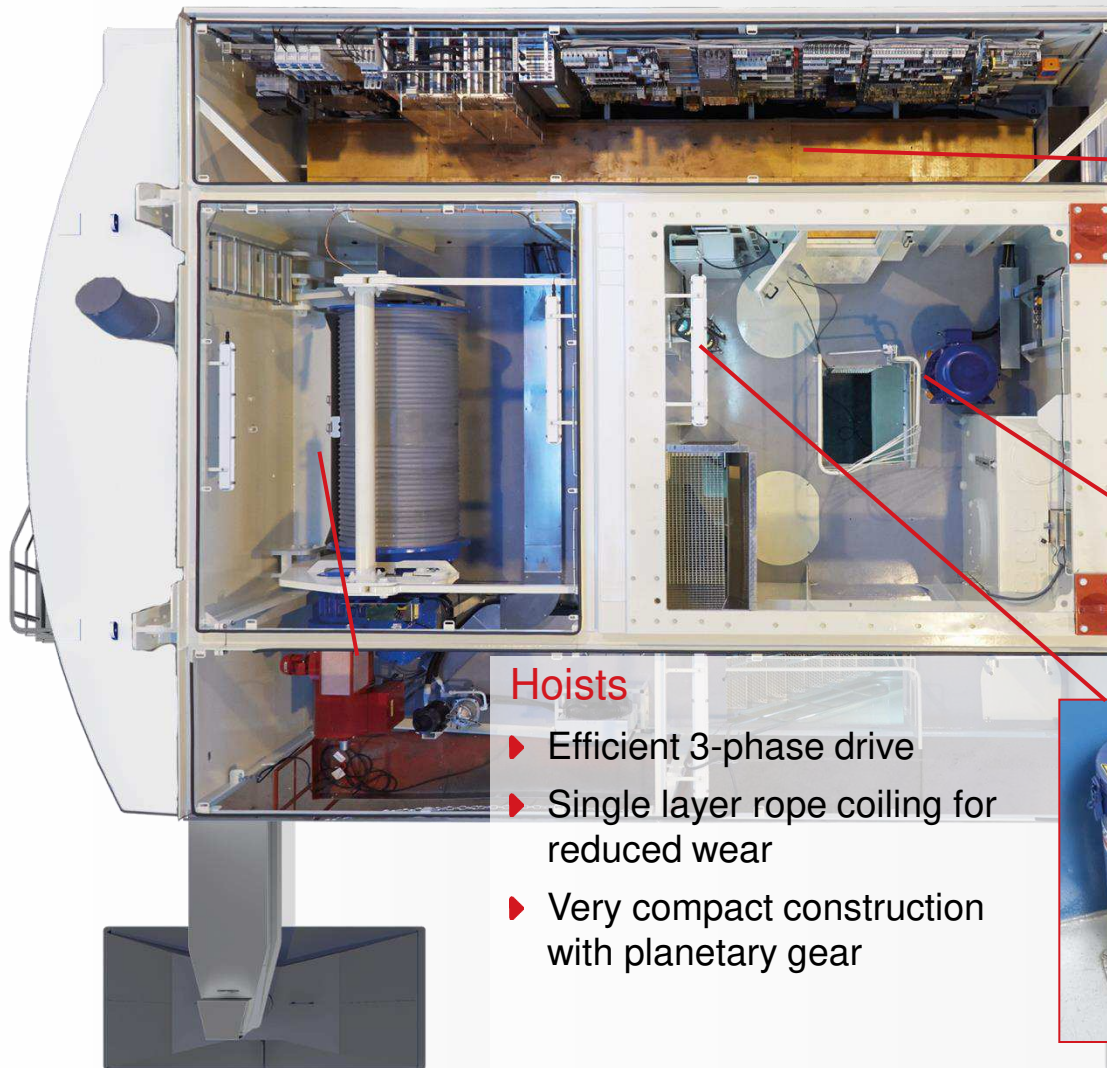
**DC for bulk version*

Top Floor – Overview



- ▶ 2.5 m clear headroom
- ▶ Separate large rooms for:
 - up to two hoists
 - hydraulic unit including tank
 - electrical equipment
- ▶ Spacious stairway to tower
- ▶ Hoist located at the rear:
 - to provide excellent rope guidance beyond the tower
 - to reduce crane weight

Top Floor – In Detail

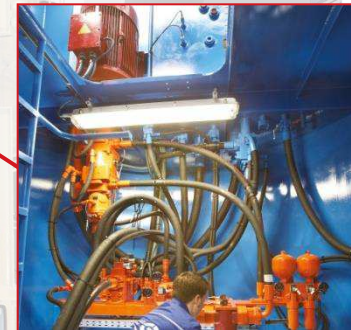


Electrics room



- ▶ Spacious
- ▶ Inverter units for 3-phase drives
- ▶ Heated and air-conditioned

Hydraulic unit



- ▶ Supplies: luffing cylinder, travel gear, steering and break systems

Hoists

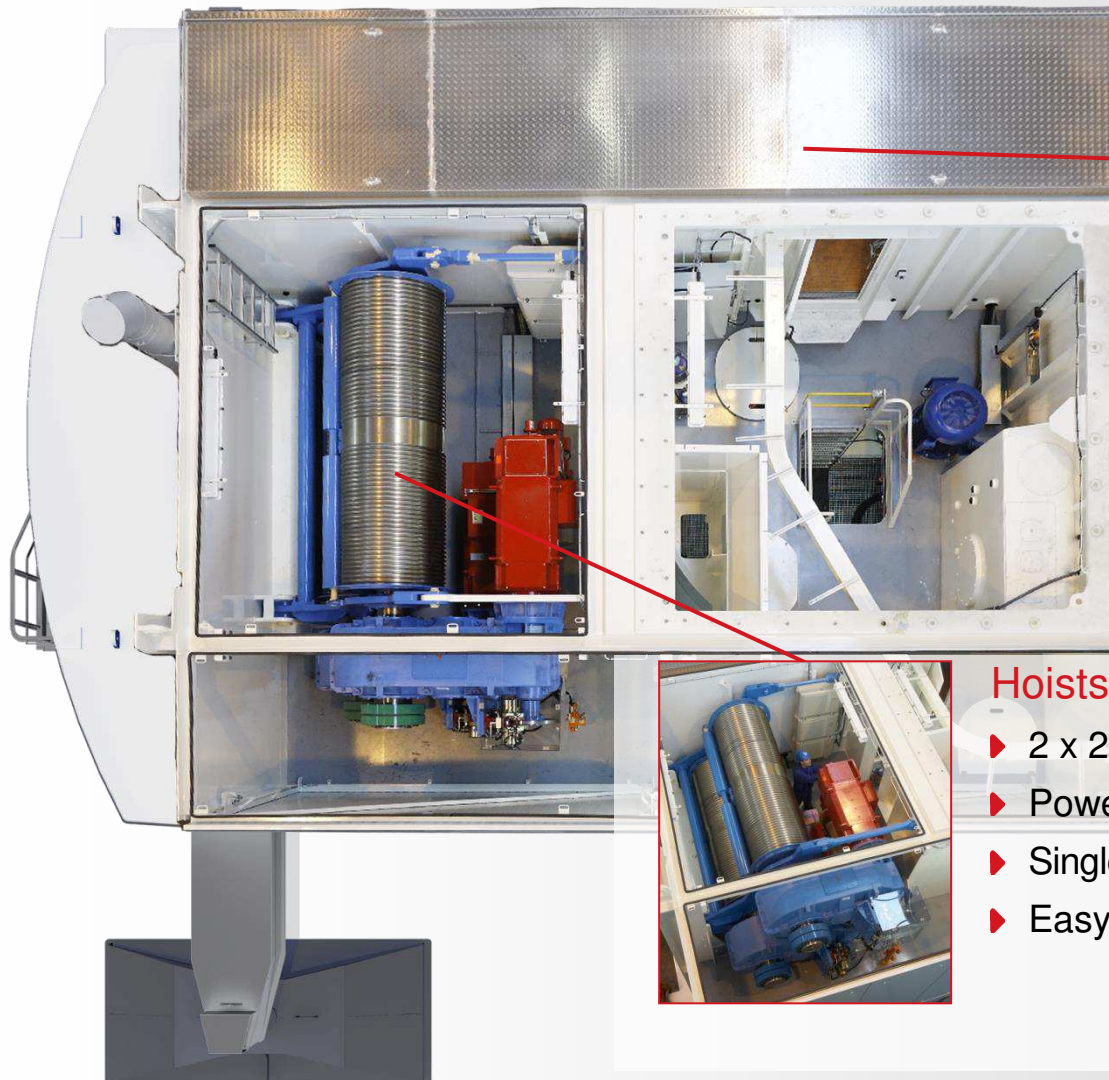
- ▶ Efficient 3-phase drive
- ▶ Single layer rope coiling for reduced wear
- ▶ Very compact construction with planetary gear



Central lubrication

- ▶ Standard: slew ring, boom root, luffing cylinder bearings
- ▶ Option: chassis, rope pulleys

Top Floor – In Detail (Bulk Versions)



Electrics room



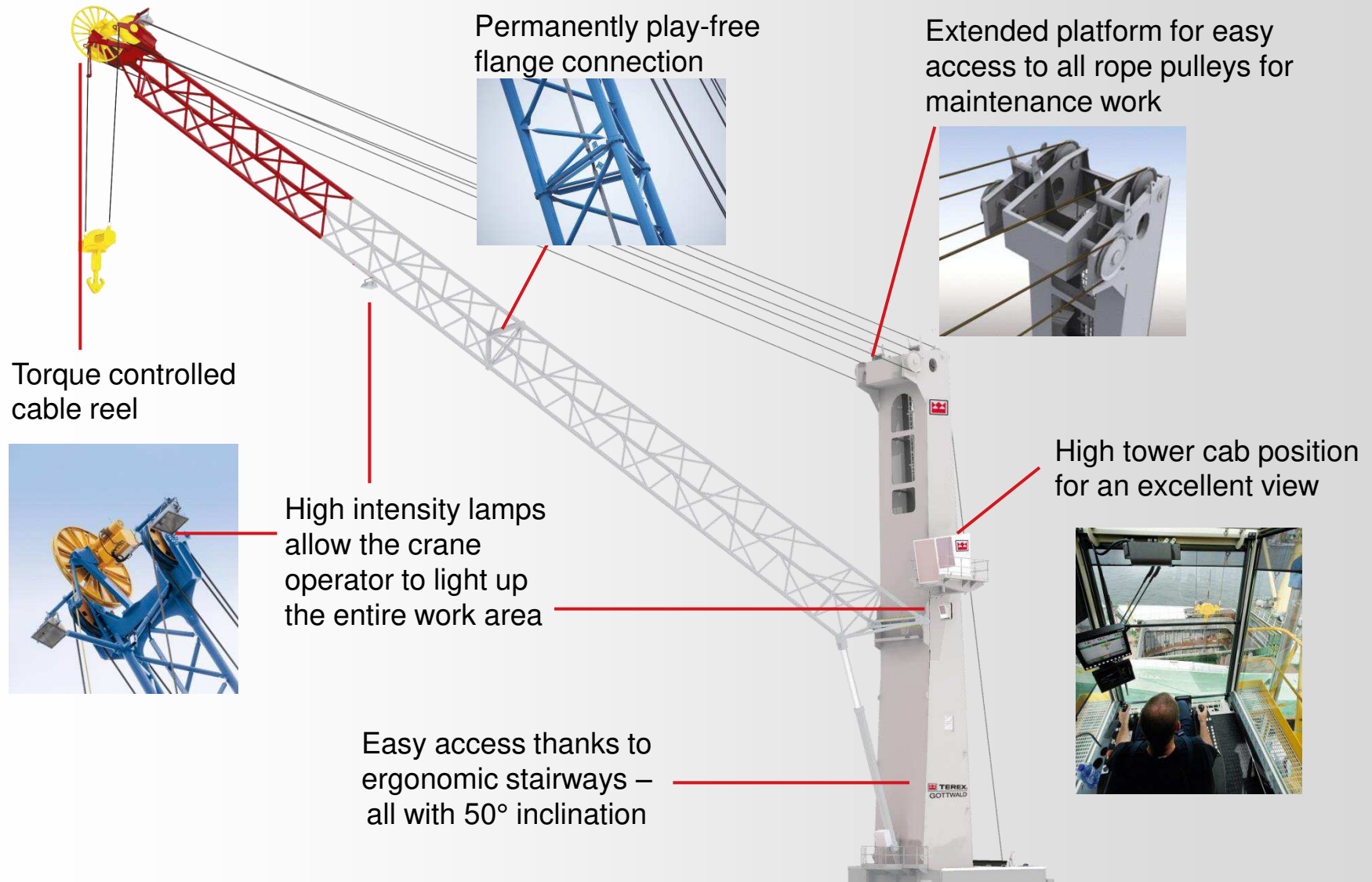
- ▶ Spacious
- ▶ Converter units for DC drives
- ▶ Heated and air-conditioned

Hoists

- ▶ 2 x 2
- ▶ Powerful DC drive
- ▶ Single layer rope coiling for reduced wear
- ▶ Easy accessibility and excellent heat removal



Tower and Boom – Overview



Torque controlled cable reel



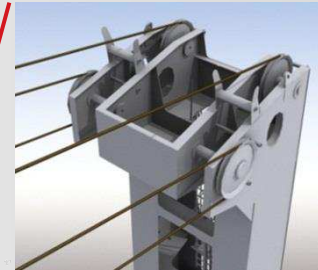
High intensity lamps allow the crane operator to light up the entire work area

Easy access thanks to ergonomic stairways – all with 50° inclination

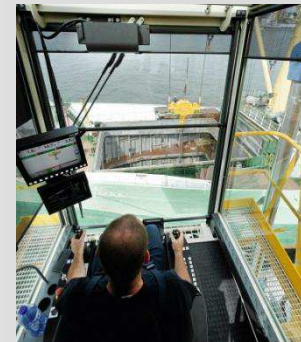
Permanently play-free flange connection

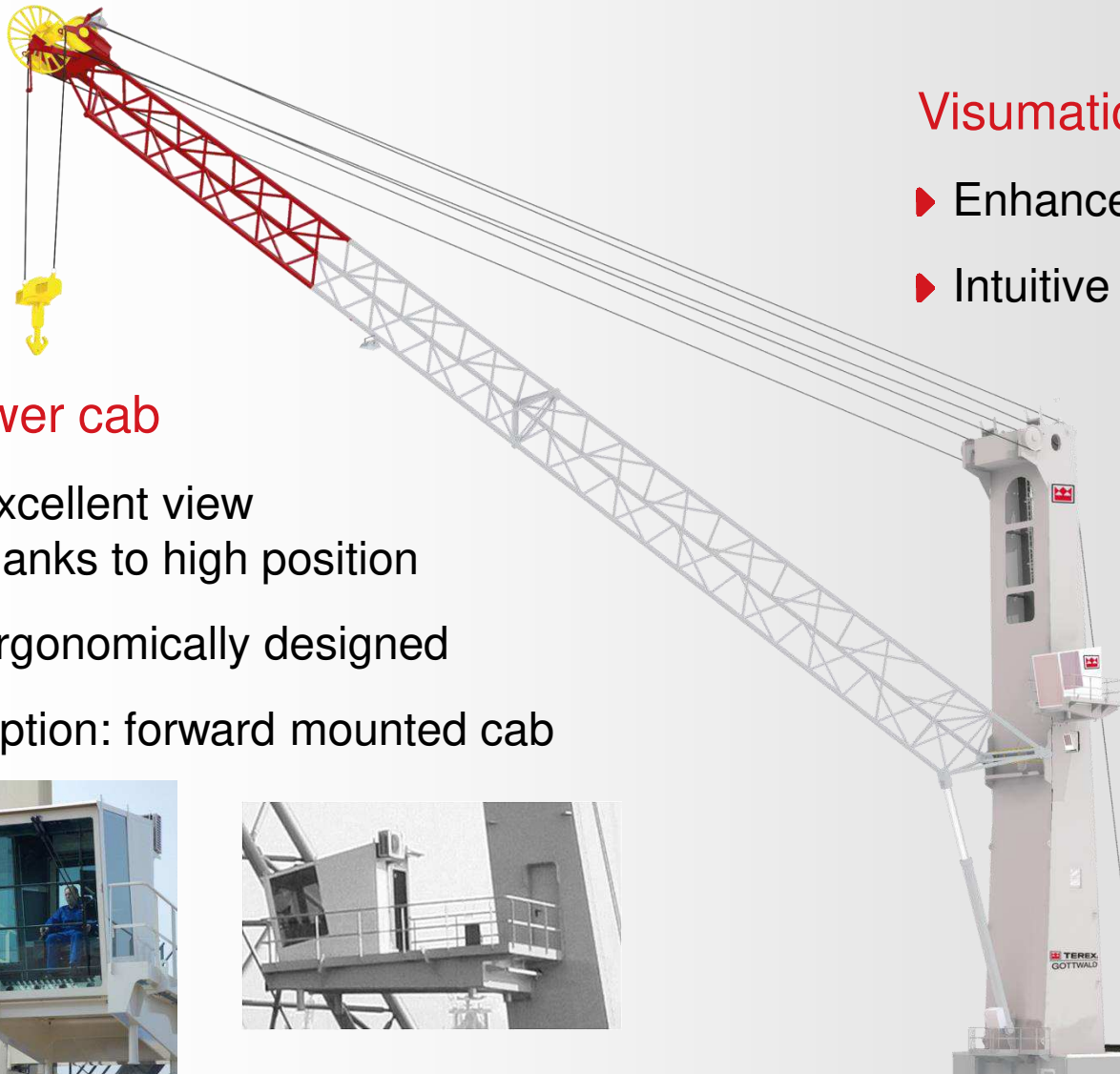


Extended platform for easy access to all rope pulleys for maintenance work



High tower cab position for an excellent view





Tower cab

- ▶ Excellent view thanks to high position
- ▶ Ergonomically designed
- ▶ Option: forward mounted cab



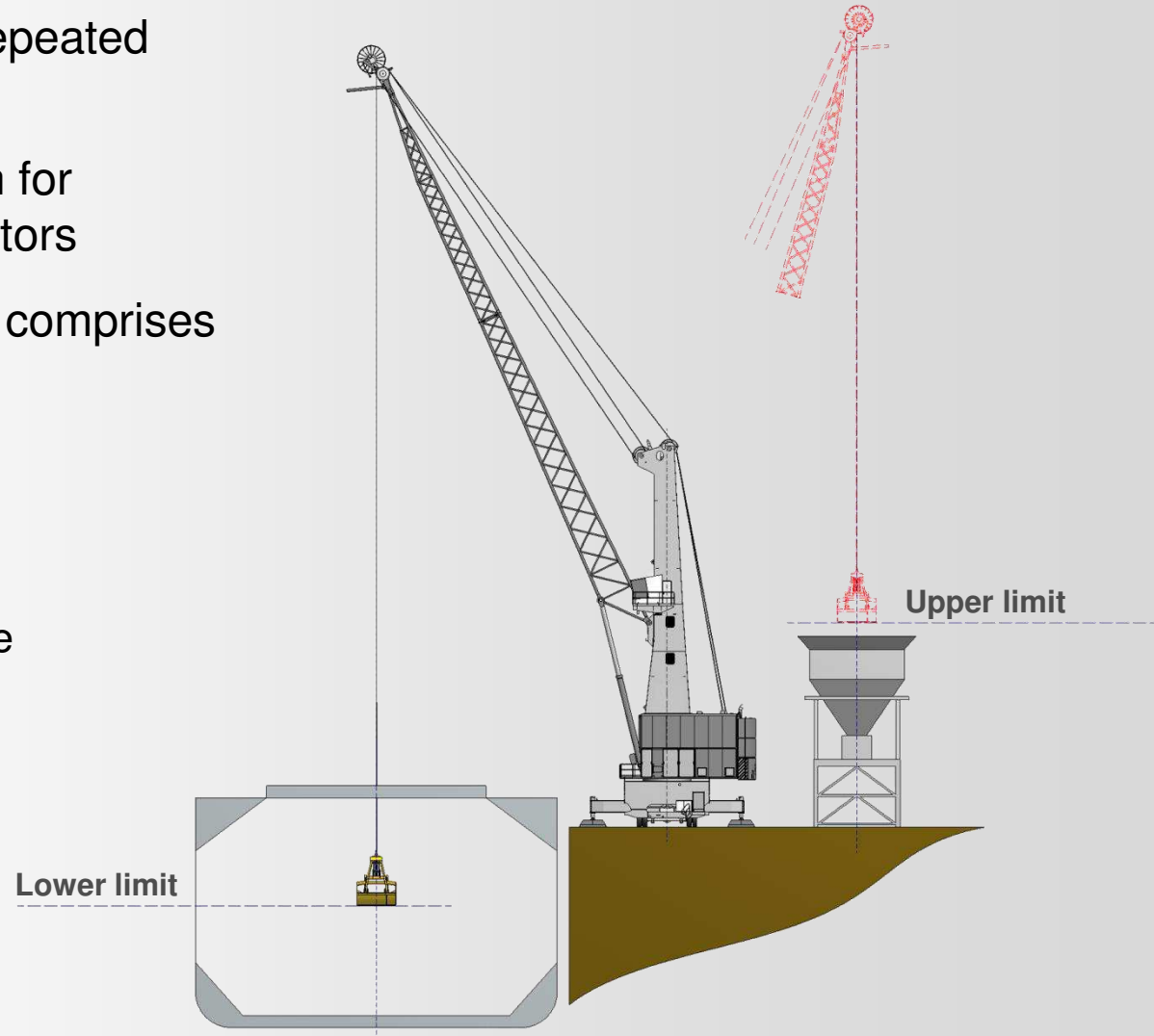
Visumatic® crane management

- ▶ Enhanced diagnostic possibilities
- ▶ Intuitive operator guidance



Model 6 – Load Guidance System

- ▶ Automation of frequently repeated crane motions
- ▶ Higher handling rates even for inexperienced crane operators
- ▶ The load guidance system comprises optional features:
 - Linear load motion
 - Hoisting height limiting
 - Load antisway
 - Point-to-point handling mode



Smart Crane Features

Tandem lift assistant

- ▶ Full capacity of both cranes can be exploited
- ▶ Remote control by only one crane driver
- ▶ Includes vertical lift assistant



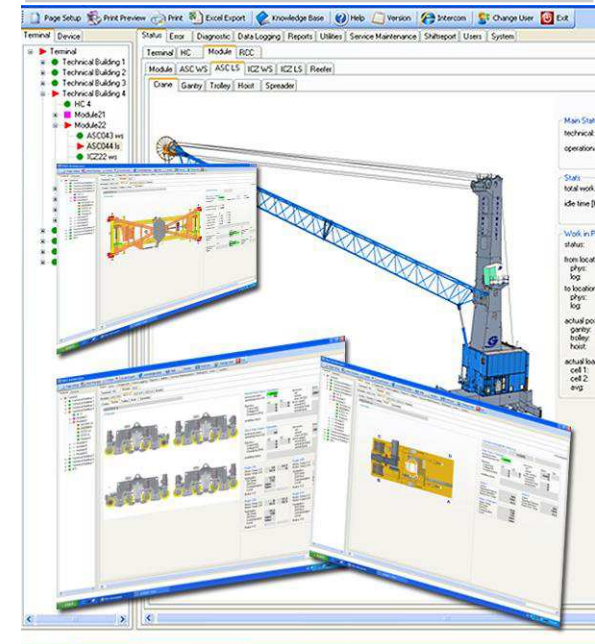
Weighing system

- ▶ Mounted direct on the crane
- ▶ Fast and accurate
- ▶ Verifiable for commercial use (EU type approval)
- ▶ No additional process steps required



FMDS

- ▶ FMDS Basic
 - Web reporting
 - Remote desktop
 - Remote assistance
- ▶ FMDS Advanced
 - Extensive diagnostic and analytic functions
 - Connection to other IT systems (e.g. TOS, ERP)



- ▶ Standard for all Terex® Gottwald products including harbour cranes
- ▶ Most common energy source in ports
- ▶ State-of-the-art diesel generator provides excellent efficiency
- ▶ Easy integration of energy efficiency technologies
- ▶ Dynamic brake resistors as standard: fuel savings of up to 15.2% depending on operating conditions and crane capacity
- ▶ Easy connection to terminal mains (external power supply)



Hybrid Drive

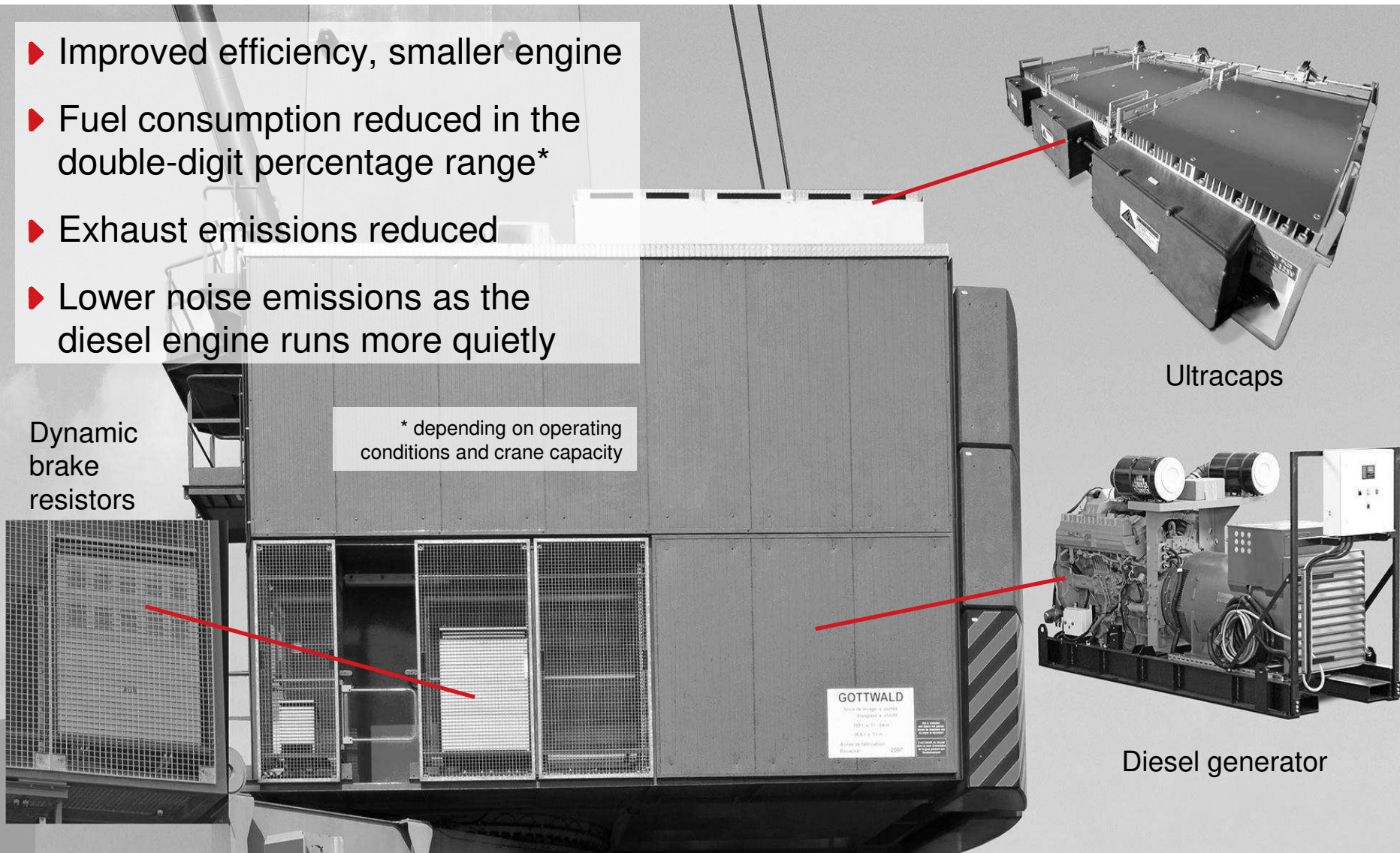
- ▶ Improved efficiency, smaller engine
- ▶ Fuel consumption reduced in the double-digit percentage range*
- ▶ Exhaust emissions reduced
- ▶ Lower noise emissions as the diesel engine runs more quietly

* depending on operating conditions and crane capacity

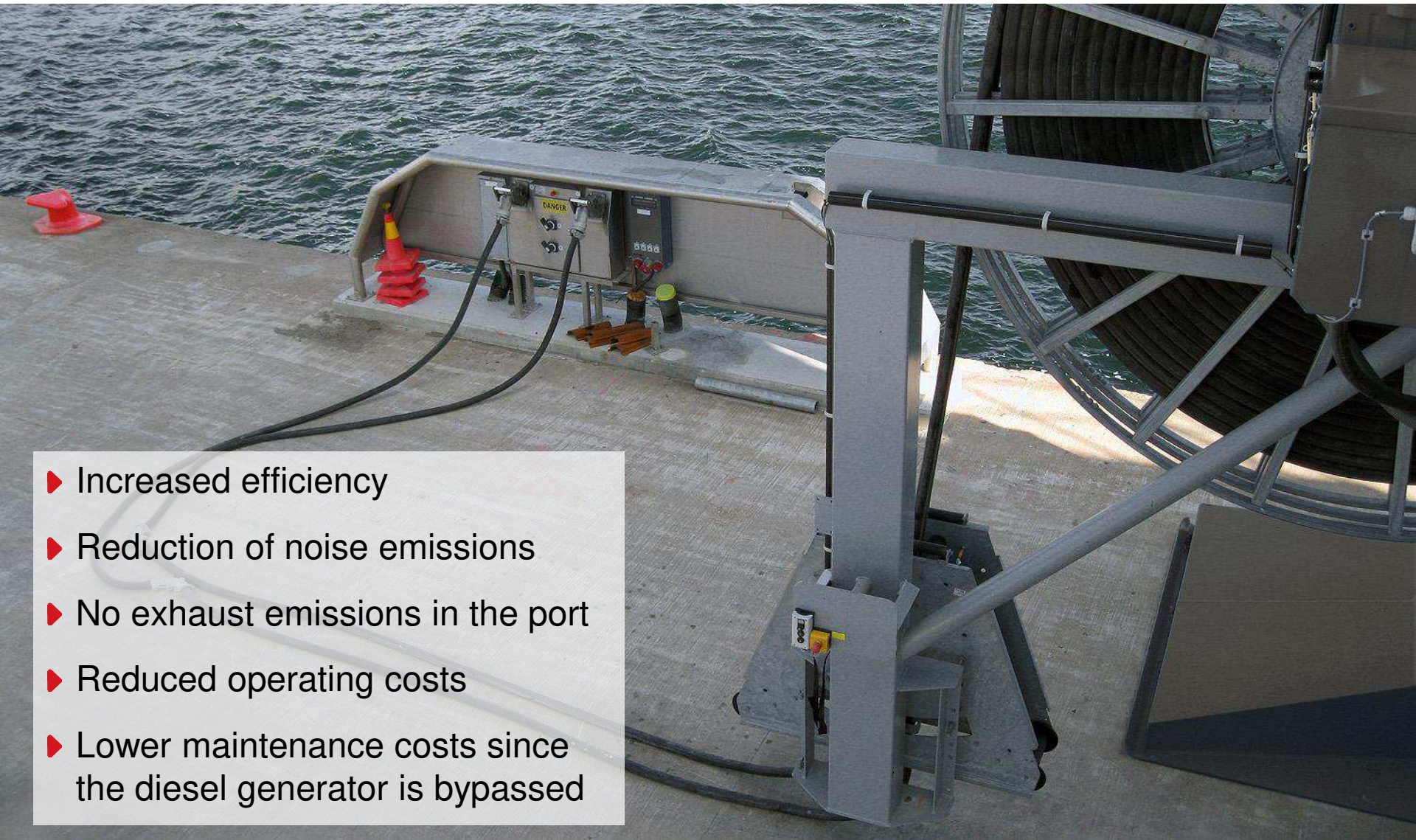
Dynamic brake resistors

Ultracaps

Diesel generator



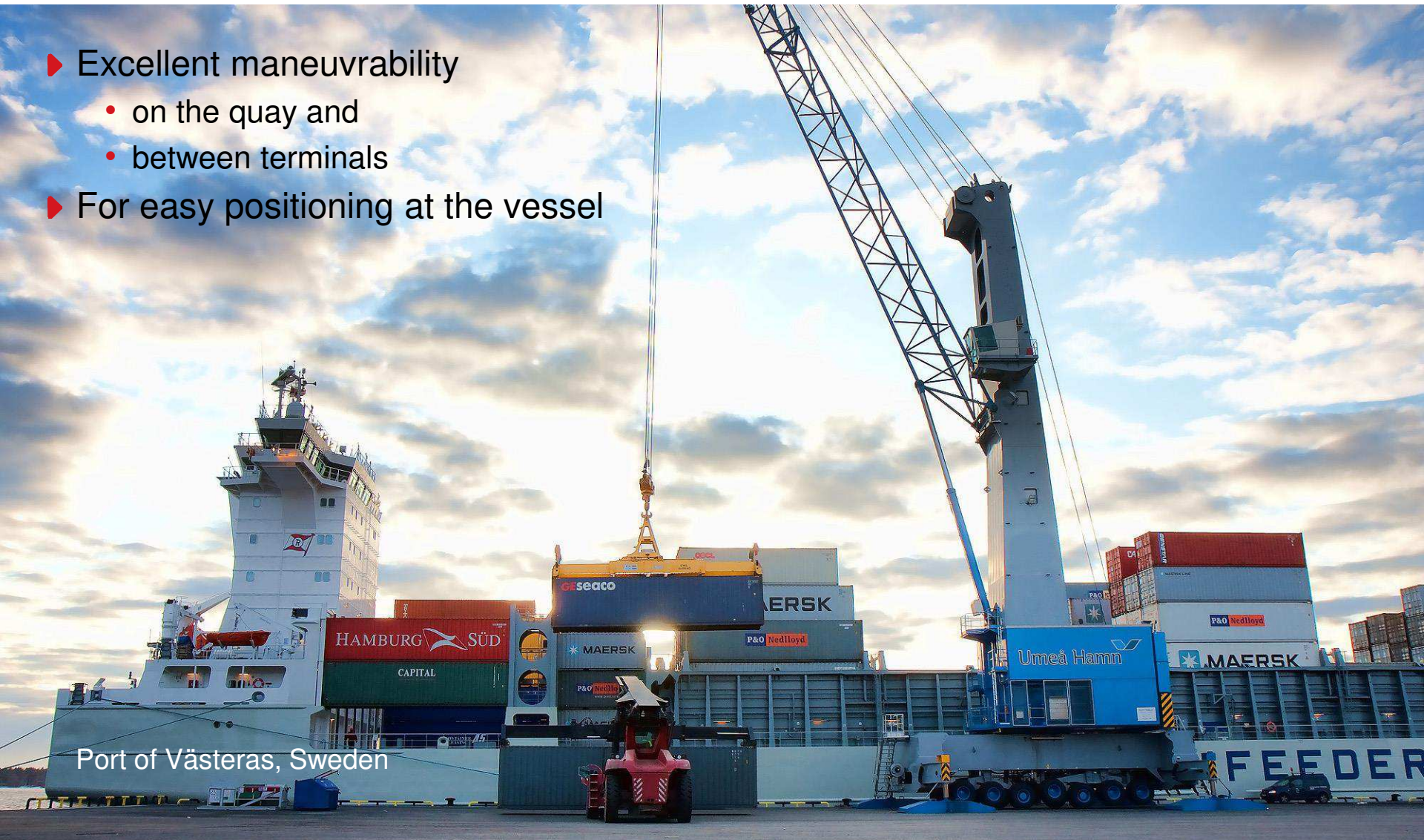
External Power Supply

- 
- The image shows an external power supply unit (EPS) installed on the deck of a ship. The unit is a grey metal cabinet with two large power outlets on the left side, each with a black power cable plugged in. A red and yellow safety cone is placed next to the unit. To the right, there is a large metal structure, likely part of a crane or hoist, with a thick black cable coiled around it. The background shows the ship's deck and the ocean.
- ▶ Increased efficiency
 - ▶ Reduction of noise emissions
 - ▶ No exhaust emissions in the port
 - ▶ Reduced operating costs
 - ▶ Lower maintenance costs since the diesel generator is bypassed

Mounted on a Rubber-Tyred Chassis



- ▶ Excellent maneuverability
 - on the quay and
 - between terminals
- ▶ For easy positioning at the vessel



Port of Västerås, Sweden

Rail-Mounted Solutions

- ▶ Portal harbour crane variants
 - Can be integrated exceptionally well in bulk handling infrastructures
 - Are designed for use on narrow and special-purpose quays



Port of Tyne, UK

Barge Solutions

- ▶ Floating cranes are the right choice where quay space is limited
- ▶ Available as
 - harbour pontoon cranes
 - portal harbour cranes on barges



On the Mississippi, USA

High-Performance Container Handling



TEREX

Port Solutions



- ▶ Outstanding flexibility
- ▶ Alternative to dedicated equipment like ship-to-shore cranes
- ▶ Container ship size up to post-Panamax

Port of San Vicente, Chile

Professional Bulk Handling

- ▶ Comparatively light construction
- ▶ Customized propping pads available to meet special quay requirements



Port of Ghent, Belgium

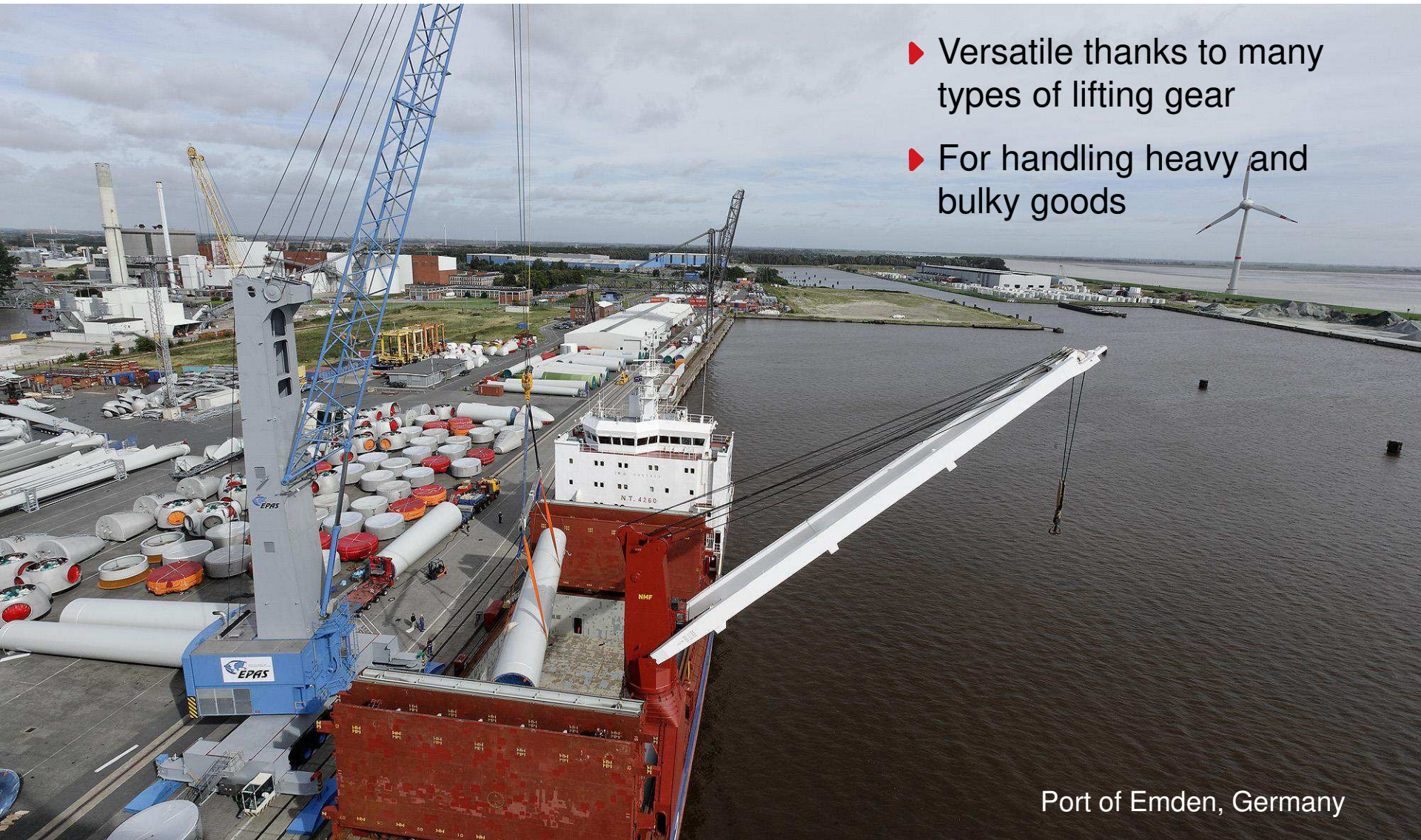
Handling of General Cargo

- ▶ Large outreach for transshipment
- ▶ Impressive lifting capacity curve



Port of Antwerp, Belgium

Handling of Project Cargo

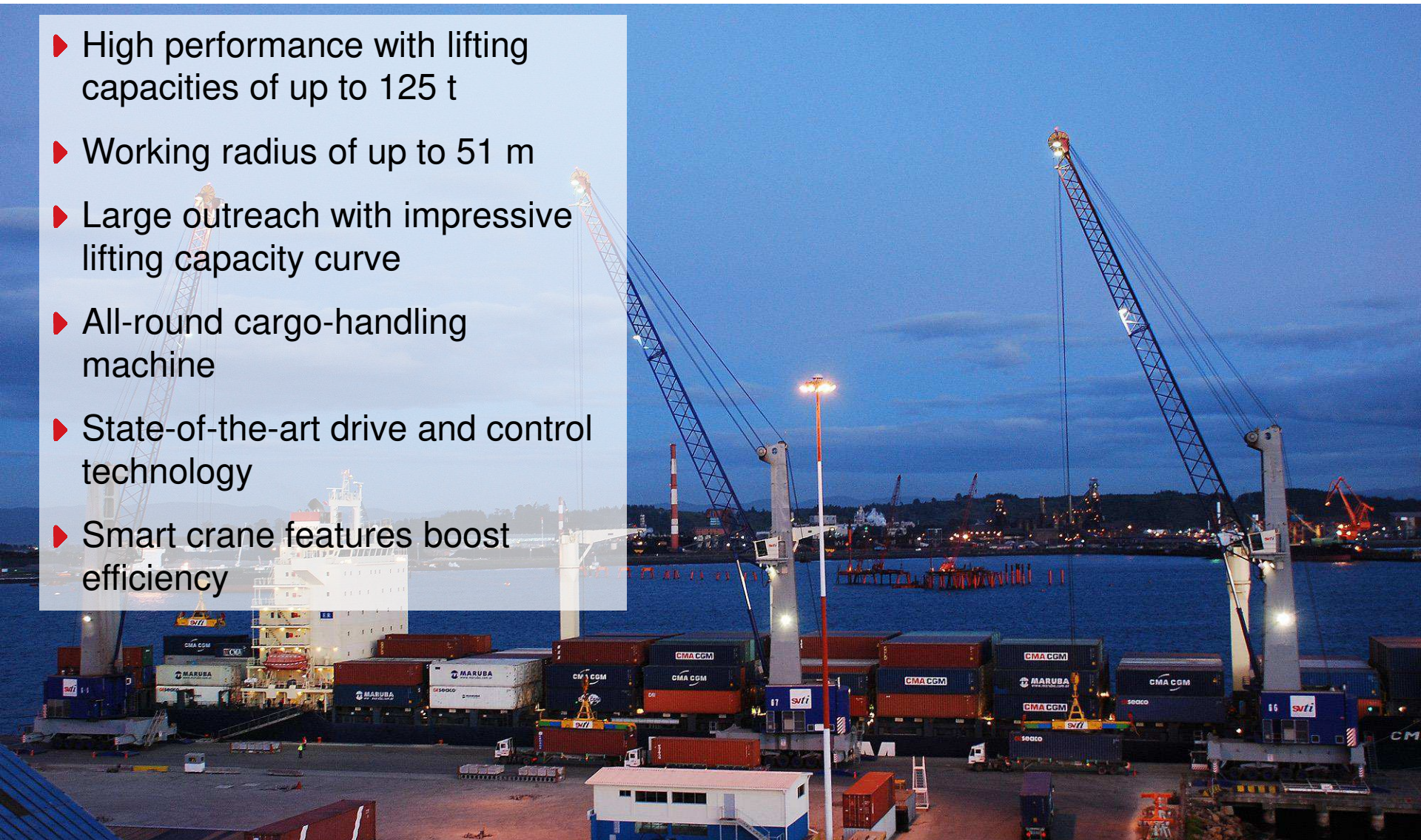


- ▶ Versatile thanks to many types of lifting gear
- ▶ For handling heavy and bulky goods

Port of Emden, Germany

Model 6 – In a Nutshell

- ▶ High performance with lifting capacities of up to 125 t
- ▶ Working radius of up to 51 m
- ▶ Large outreach with impressive lifting capacity curve
- ▶ All-round cargo-handling machine
- ▶ State-of-the-art drive and control technology
- ▶ Smart crane features boost efficiency





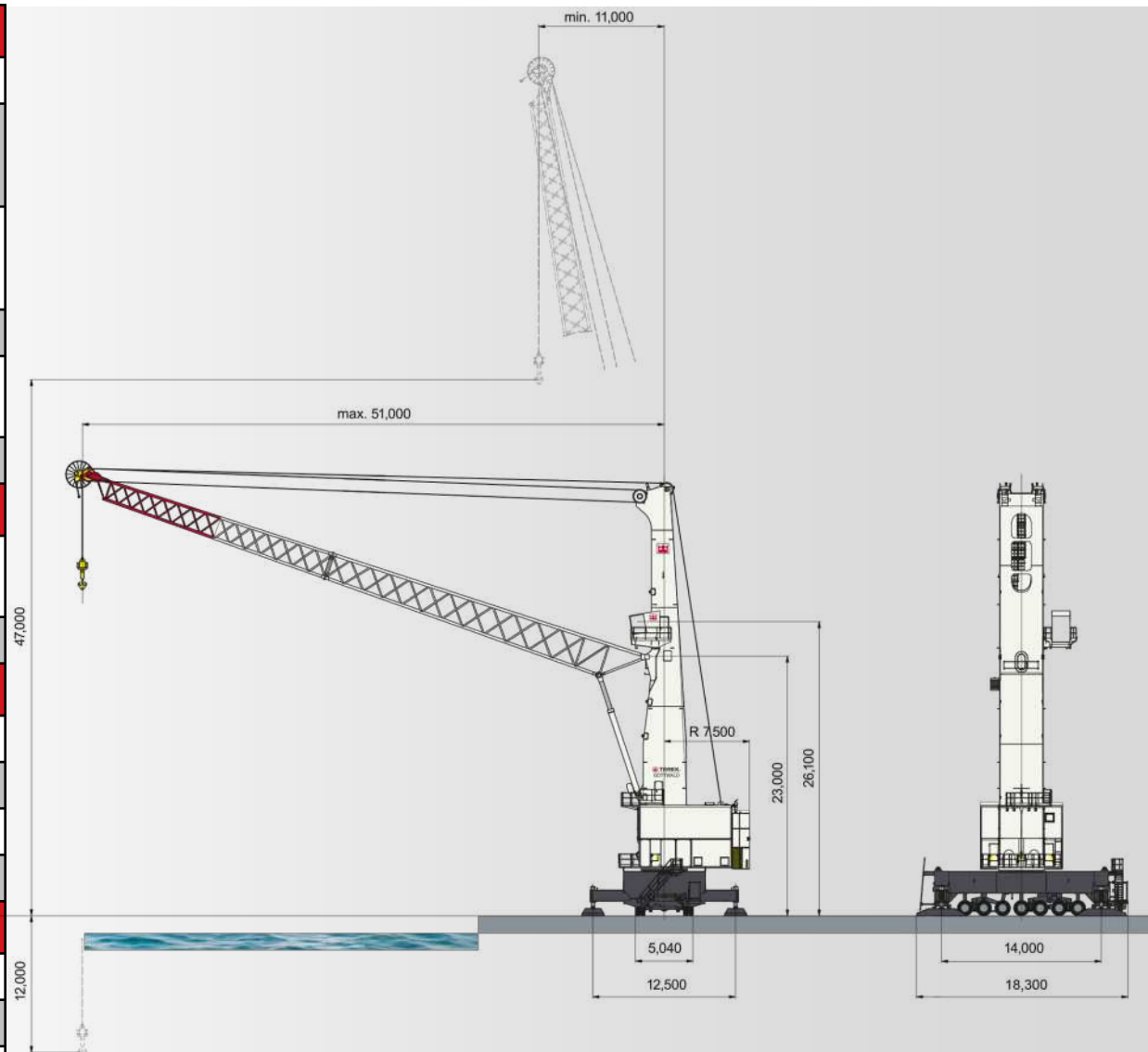
Port Solutions

Technical Data Terex[®] Gottwald Model 6



Model 6 – Main Technical Data

Dimensions and weights	
Radius	11.0 m – 51.0 m
Boom pivot point	High tower 23.0 m with extension 26.0 m Short tower 17.6 m
Tower cab (crane operator eye level)	High tower 26.1 m with extension 29.1 m Short tower 20.7 m
Propping base	14.0 m x 12.5 m
Chassis in travel mode	18.3 m x 9.0 m optional : 18.3 m x 8.3 m
Weight (approx.)	420 t
Hoisting heights	
Above quay level	G HMK 6407/ 6507 B: 46.0 m G HMK 6407/6507: 47.0 m
Below quay level	12.0 m
Travel gear	
Axles	7
Steered axles	7
Driven axles	2
Crab steering	25°
Working speeds and drive power	
Slewing	0 – 1.6 rpm
Luffing	0 – 82 m/min
Travelling	0 – 80 m/min



Model 6 – Lifting Capacity in Tonnes

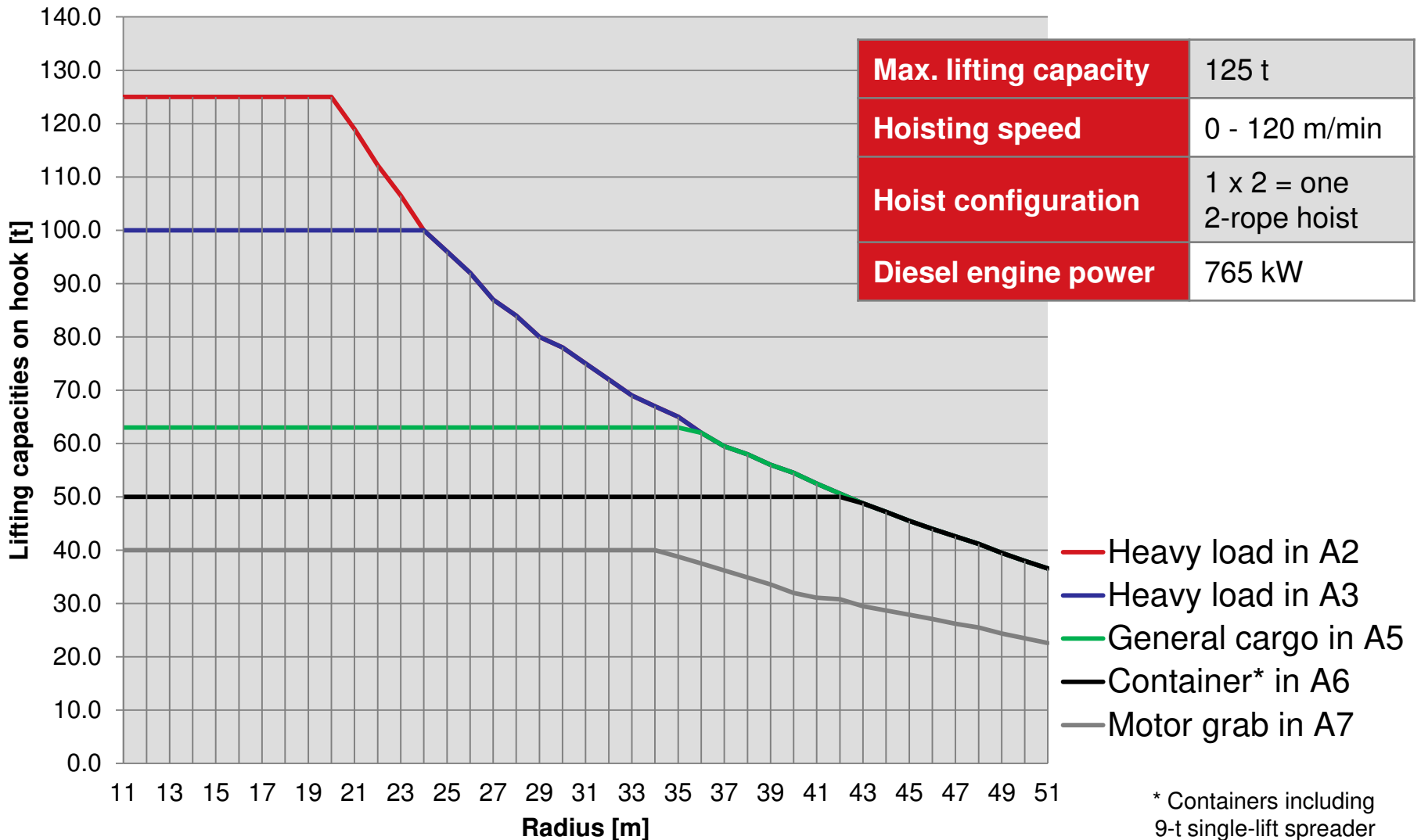


Port Solutions

Operating modes	Heavy load			General cargo		Container*		Motor grab	4-rope grab A7/ motor grab	4-rope grab A8
G HMK 6507	•			•	•	•	•	•		
G HMK 6407			•	•	•	•	•	•		
G HMK 6507 B		•		•		•			•	•
G HMK 6407 B			•	•		•			•	•
Radius [m]										
11 – 18	125.0	120.0	100.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
19	125.0	117.0	100.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
20	125.0	114.0	100.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
21	119.0	111.0	100.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
23	106.5	104.0	100.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
25	96.0	96.0	96.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
27	87.0	87.0	87.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
29	80.0	80.0	80.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
31	75.0	75.0	75.0	63.0	47.0	41.0	38.0	40.0	50.0	40.0
33	69.0	69.0	69.0	63.0	47.0	41.0	38.0	40.0	48.3	40.0
35	65.0	65.0	65.0	63.0	47.0	41.0	38.0	38.8	44.7	38.4
37	59.5	59.5	59.5	59.5	47.0	41.0	38.0	36.2	40.8	35.8
39	56.0	56.0	56.0	56.0	47.0	41.0	38.0	33.6	37.9	33.3
41	52.5	52.5	52.5	52.5	47.0	41.0	38.0	31.1	34.8	31.1
43	48.8	48.8	48.8	48.8	47.0	39.8	38.0	29.5	32.5	29.0
45	45.5	45.5	45.5	45.5	45.5	36.5	36.5	27.9	30.4	27.1
47	42.6	42.6	42.6	42.6	42.6	33.6	33.6	26.2	28.5	25.4
49	39.5	39.5	39.5	39.5	39.5	30.5	30.5	24.4	26.8	23.8
51	36.6	36.6	36.6	36.6	36.6	27.6	27.6	22.6	25.2	22.4

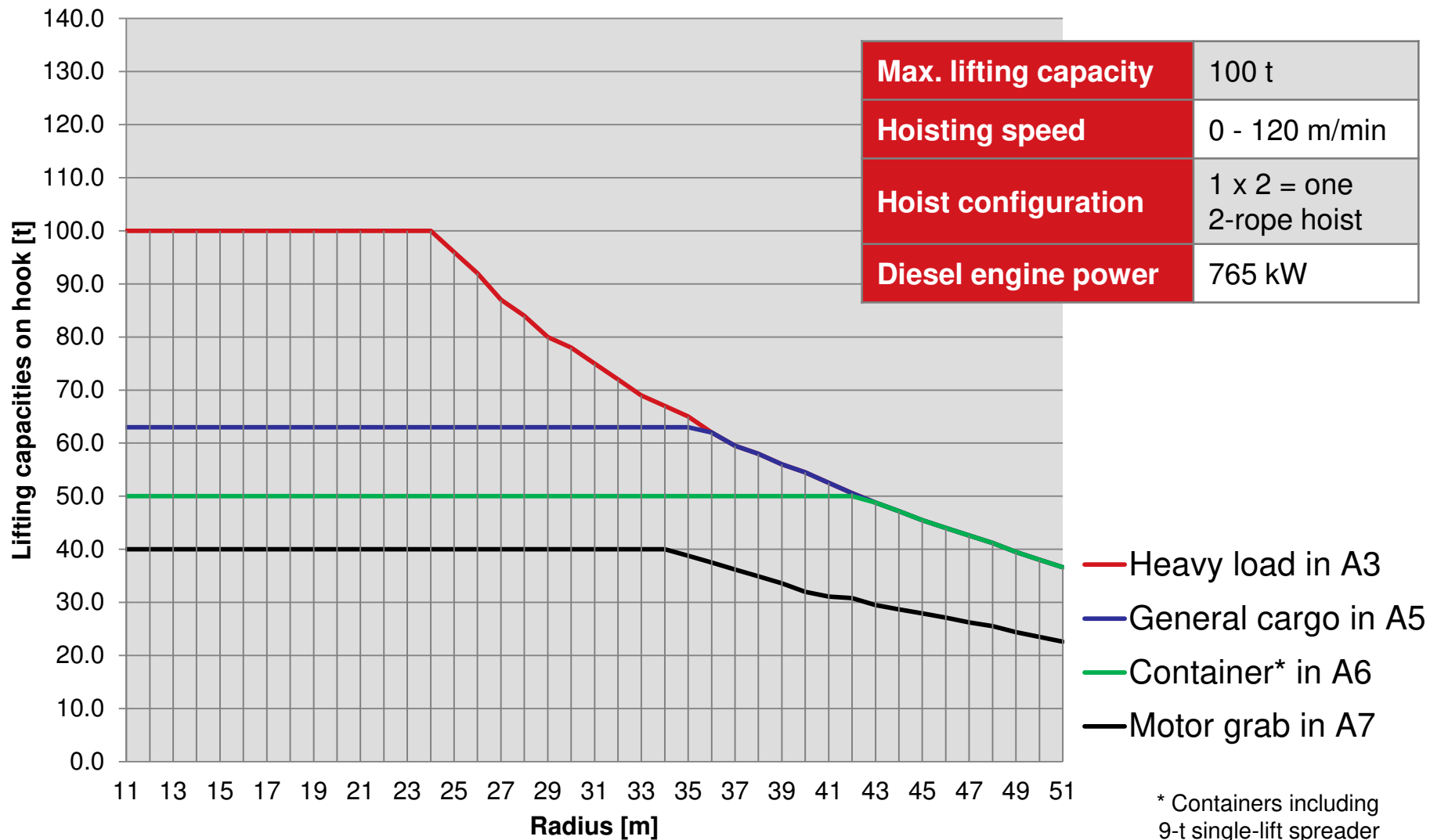
* Containers below 9-t single-lift spreader

G HMK 6507



* Containers including 9-t single-lift spreader

G HMK 6407

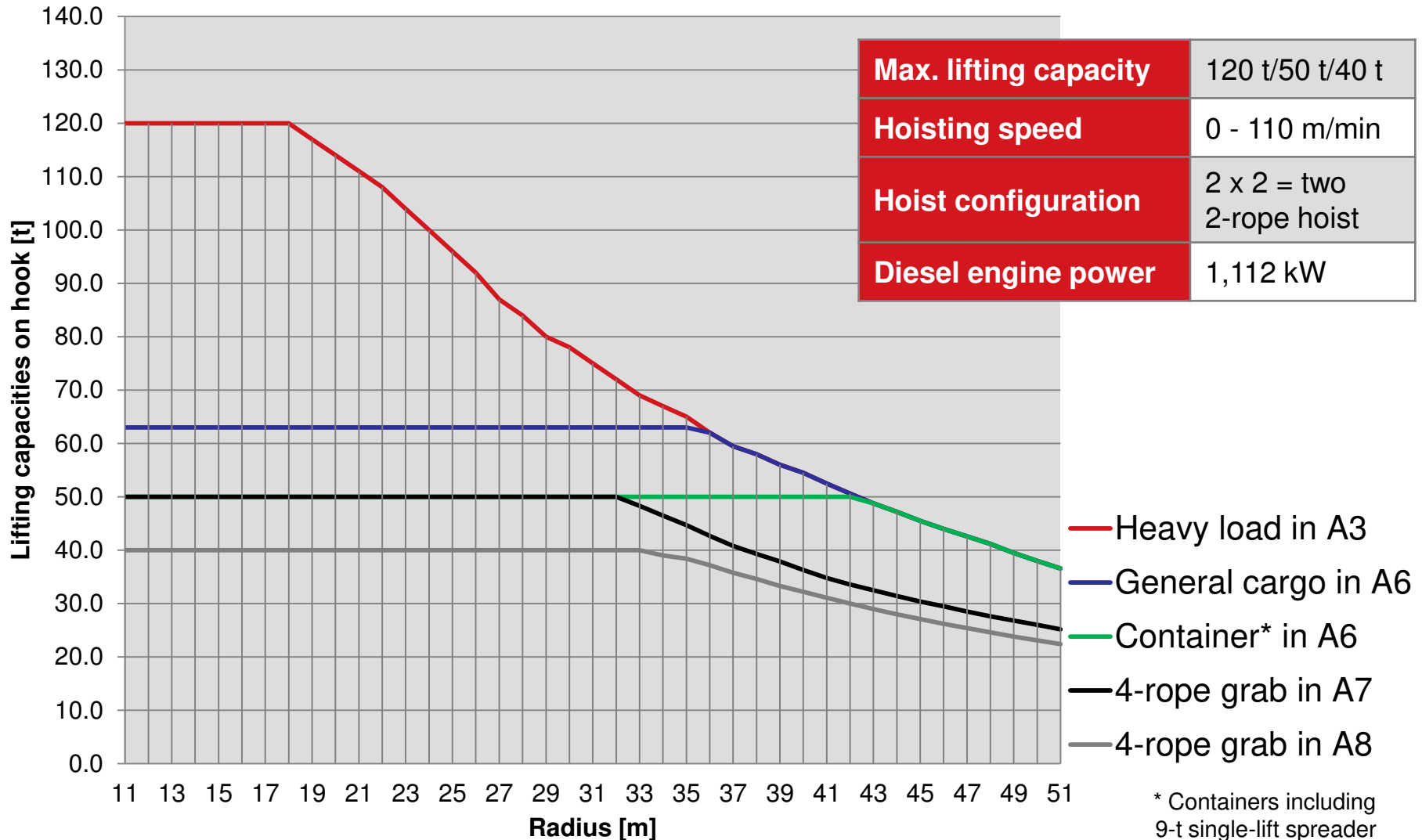


Max. lifting capacity	100 t
Hoisting speed	0 - 120 m/min
Hoist configuration	1 x 2 = one 2-rope hoist
Diesel engine power	765 kW

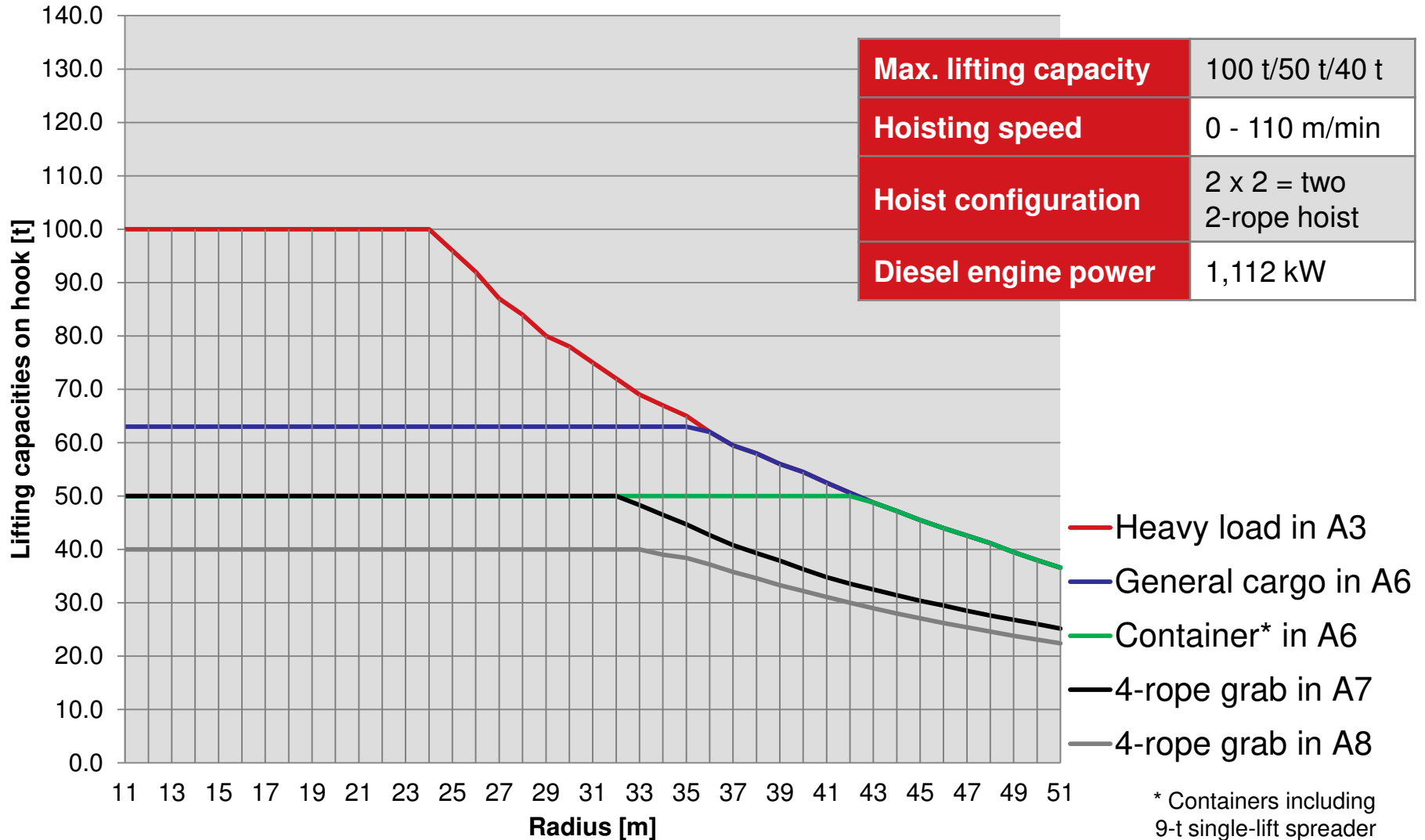
- Heavy load in A3
- General cargo in A5
- Container* in A6
- Motor grab in A7

* Containers including 9-t single-lift spreader

G HMK 6507 B



G HMK 6407 B



Equipment (1)

Section	Standard	Option
Drive system		
Diesel generator drive		
- Diesel engine MAN (765 kW)	●	
- Diesel engine Cummins (895 kW)		●
- Diesel engine Cummins (1.112 kW) for G HMK 6407 B	●	
External power supply		
- Preparation for external power supply		● *
- Low-voltage mains power equipment		● *
- Medium-voltage mains power equipment		● *
Dynamic brake resistors	● *	
Hybrid drive including double-layer high performance capacitors (ultracaps)		● *

* With its products and drive technologies, Terex Port Solutions is focused on offering alternative, environmentally compatible solutions.



More information about additional options on request.
Based on individual needs we supply such lifting gear as spreaders and grabs.

Section	Standard	Option
Controls		
Visumatic® crane management system	●	
Radio remote control (all functions)	●	
Load guidance system		
- Antisway		●
- Load linear motion		●
- Point-to-point handling mode		●
- Hoisting height limitation		●
- Tandem lift assistant		●
- Vertical lift assistant		●
Camera at the boom top	●	
Camera for revers travel		●
Tower cab		
Tower cab		
- Air conditioner	●	
- Forward-mounted by 2.5 m		●
- Additional seat		●
Chassis cab		
- Air conditioner		●
- Roof protector		●

Equipment (2)

Section	Standard	Option
Additional design features		
Crab steering	●	
Automatic stabiliser system	●	
Interlocking stabiliser beams for reduced passage width		●
Refuelling via the chassis	●	
Torque-controlled cable reel	●	
Tower extension for high tower		●
Second stairway on chassis		●
Lighting		
- Metal halide lamps	●	
- Sodium vapour lamps		●
- Prismatic lens lamps		●*

* With its products and drive technologies, Terex Port Solutions is focused on offering alternative, environmentally compatible solutions.



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Based on individual needs we supply such lifting gear as spreaders and grabs.

Section	Standard	Option
Operating fluids		
Central lubrication system for slew ring, boom root and luffing cylinder bearings	●	
Pinion lubrication using high-performance grease via separate central lubrication system	●	
Central lubrication system for chassis and rope pulleys		●
Climate package for extreme high or low ambient temperatures		●
Biodegradable fluids		
- Approved for use with B20 biodiesel (20% biodiesel, 80% petroleum diesel)	●*	
- Central lubrication system prefilled with Biodegradable lubricants for slew ring, boom root and luffing cylinder bearings		●*
- Biodegradable hydraulic oil		●*
Surface treatment		
Customer specific livery using water-based paints		●
Customer logo		●



Do you have any questions?
Feel free to ask

