

MORE THAN CONTAINER HANDLING

Floating Harbor Cranes - Bulk



ON THE WATER: DIFFERENT TYPES OF FLOATING CRANE APPLICATIONS: MID-STREAM HANDLING

- Cargo handling on rivers, in channels and in harbor basins
- Transloading of cargo between sea-going vessels and river barges
- Lightering of sea-going vessels
- Flexible cargo handling even when quays are not available
- Mid-stream handling to avoid demurrage

ON THE WATER: DIFFERENT TYPES OF FLOATING CRANE APPLICATIONS: SHIP-TO-SHORE HANDLING

- Discharging cargo from sea-going vessel to land
- Making landside equipment unnecessary
- Share the workload at times of peak demand
- Offers highest degree of mobility: ideal for short stevedoring contracts

Low-cost solution for enhancing existing berths:

- In case quay is too weak for new land-based cranes
- No dredging required
- No rehabilitation of quay wall required when harbor basin is dredged



Ship-to-shore handling

Gottwald Harbour Pontoon Cranes offer unparalleled flexibility

When space on the quay is limited, Gottwald Harbour Pontoon Cranes can transfer the cargo direct from ship to shore, making land-based cranes unnecessary. Cost-intensive modification of the infrastructure can thus be avoided.

Gottwald Harbour Pontoon Cranes can also be used alongside existing handling equipment in order to share the workload at times of peak demand. And if a ship is unable to moor directly alongside the quay because the water is too shallow, a Gottwald Harbour Pontoon Crane can be used to bridge the gap between ship and quay, making it unnecessary to invest in expensive quay walls and deep-draught berths.

A Gottwald Harbour Pontoon Crane is being put to very flexible use in the Port of Amsterdam. The G HPK 8200 B, owned by Rietlanden Stevedores, operates at the quayside, in mid-stream and in the waters beyond the locks. As a high-performance Generation 5 Gottwald Harbour Crane, it is used primarily for handling imported coal. The barge itself was ordered for the customer by Gottwald and built by a Dutch shipbuilding company.

- G HPK 8200 B (Generation 5)
- Grab capacity: 50 tonnes at a radius of up to 43 m, maximum radius: 50 m
- A8 classification as per FEM 1.001 for long service life
- Used for unloading Panamax and Capesize ships
- Barge dimensions: 50 m x 24.6 m x 4 m

The versatile Gottwald Harbour Pontoon Crane is towed quickly and safely to wherever it is needed



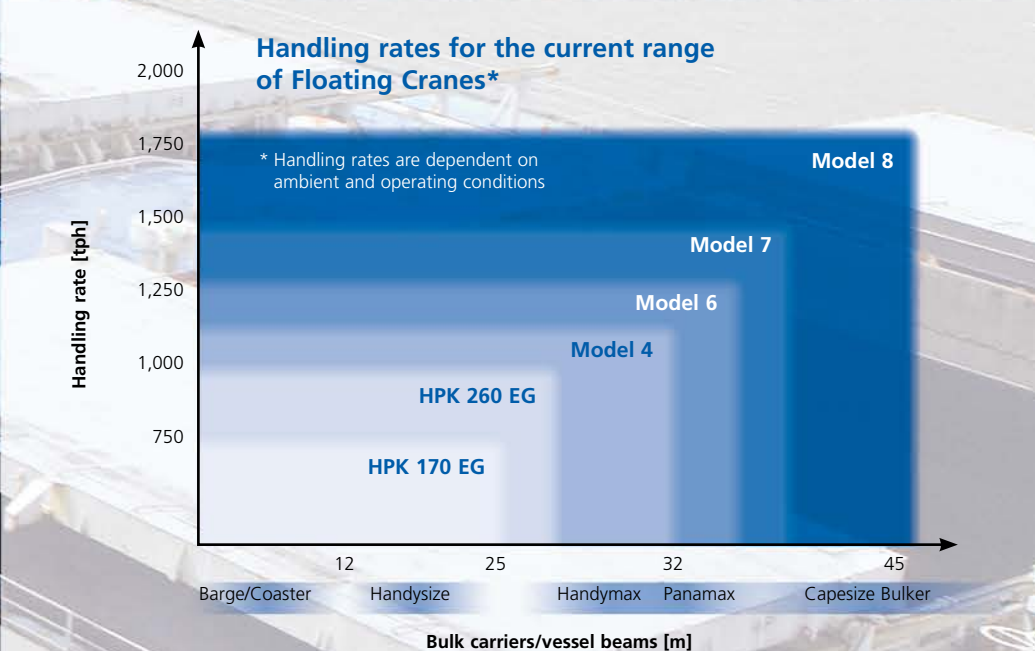
The slew ring of the crane is mounted on a cylindrical pedestal integrated in the barge



The barge has special mounts on which the hook rotator and grabs of various types and sizes can be set down



The crane's barge is also equipped with a number of winches used for warping the Floating Crane alongside sea-going vessels and for warping river vessels alongside the barge



A combination of efficiency and functionality

Portal Harbour Cranes on barge

Two HSK 330 EG Portal Harbour Cranes on barges transshipping coal at a pier in Charleston, SC, USA

- Track gauge: 13.4 m
- Grab capacity: 40 tonnes at a radius of up to 34 m, maximum radius: 50 m
- Used for unloading Panamax ships
- Barge dimensions: 72.5 m x 19.5 m x 3.6 m

Gottwald Floating Cranes were launched onto the market in 2004. Since then, a number of units have been put into service, including several Portal Harbour Cranes on barges. These cranes combine Gottwald's well-known and highly

successful Portal Harbour Crane concept with a barge. Each barge is fitted with rails on which the crane's portal can travel. The crane can thus serve several ship holds, travelling between them on its rail-bound portal, making it unnecessary to warp the barge or the ship.

Two Portal Harbour Cranes on barge are operated at the Shipyard River Terminal in Charleston, South Carolina, USA. They handle coal for local power stations and must meet the toughest flexibility requirements. They operate at the pier, which is equipped with hoppers and conveyor belts for onward land transport of the coal. They can also be used mid-stream, transshipping coal from large

ships to smaller barges, which, in turn, transport it on to its destination. The barge-mounted Portal Harbour Cranes, which are of a 4-rope design, achieve handling rates of up to 1,100 tonnes an hour.



To keep the crane stable during travel on the barge, the rails are upwardly inclined from the centre to the two ends of the barge.

As with all Gottwald Floating Cranes, the barge is supplied by a specialist manufacturer.



Gottwald Floating Cranes are diesel-electrically driven. It is also possible to make use of an external power source since Gottwald cranes already use electrical drive technology and the drive units can also be operated directly with power from the on-shore power supply. No wonder this environmentally-friendly drive system most commonly used in ports brings to the fore its advantages over other systems and is completely state-of-the-art.

ON THE WATER: DIFFERENT TYPES OF FLOATING CRANE APPLICATIONS: SHIP-TO-SHORE HANDLING

“Low-cost” import terminal:

- Floating crane moors alongside a floating dock
- Floating dock
 - equipped with full infrastructure (hoppers, conveyor system)
 - Compensates for changes in water level
 - Minimum civil works required
 - No quay wall, no quay construction
 - Only dolphins and landside support for hinged belt conveyor



NOT JUST LIFTING THINGS,
BUT ENTIRE BUSINESSES