

**HSK**



Versatility Has a Name  
**The HSK 170 EG with Special Travel Equipment**

# New Ideas Sow the Seeds for Gaining the Lead

## Customers Initiate New Product Line with Special Features

We are the inventor of the Mobile Harbour Crane. In the past five decades, we have supplied more than 900 cranes to more than 70 countries. The diesel-electric drive concept coupled with our renowned versatility provide our products with a decisive competitive edge – a high degree of efficiency, excellent reliability and cost-effectiveness second-to-none.



**The basis for the HSK 170 EG – the HMK 170 Mobile Harbour Crane**

In addition to the Mobile Harbour Crane, we began in 1998 to build the HSK Portal Harbour Crane. The HSK Portal Harbour Crane uses the same proven technologies as our HMK Mobile Harbour Crane – the only difference being that the portal is adapted to meet the individual requirements of the customer.

Our close customer contacts bore the seeds for a new fruit – the creation of Gottwald's HSK Portal Harbour Crane: IC Rail Marine Terminal, one of our customers in the USA, suggested combining Mobile Harbour Crane technology and a crane portal as a solution for operating a crane at a site with limited space – the Gottwald Portal Harbour Crane was born.

### Ever More Demanding Challenges

Two years later, it was Vladimir N. Kovbasjuk, General Director of the Russian Novorossiysk Commercial Seaport (NCSP), who made even more challenging demands on the Gottwald Portal Harbour Crane. Kovbasjuk wanted to be able to move rail-mounted cranes from one rail-bound quay to the next.

However, since his port also has quays without rails, Mr. Kovbasjuk wished to be able to operate cranes on these quays too.



**Vladimir N. Kovbasjuk, who was born in 1948, is the General Director of NCSP and the design initiator of our HSK Portal Harbour Crane with travel equipment.**

**For seven years, Mr. Kovbasjuk has been at the head of the largest Russian Black Sea port, which operates a total of 12 Gottwald cranes.**

### Responding to Customer Requirements

In order to meet Mr. Kovbasjuk's requirements with the highest possible degree of flexibility and mobility, we developed special travel equipment, which can be mounted on the crane portal when it is required. This equipment offers excellent manoeuvrability, with 90-degree on-the-spot rotation, allowing the crane to travel quickly to different parts of the site. For crane operation on quays without rails, we include eight propping pads in the portal equipment.

## Black Sea

**The HSK 170 EG portal fitted with both special travel equipment and 8 stabiliser pads**



## Turkey

**90-degree on-the-spot rotation for excellent manoeuvrability**





Two HSK 170 EG cranes being transported to the Port of Tuapse



Portals with customised clearance heights and track gauges

### Tuapse Orders First

The operators of Tuapse Commercial Seaport, another important handling site on the Black Sea near to Novorossiysk, had the same requirements in the year 2000 as NCSP.

Impressed by Mr. Kovbasjuk's idea, Tuapse was the first customer worldwide to order Gottwald Portal Harbour Cranes with travel equipment.

The cranes in question were two four-rope grab HSK 170 EGs with a maximum lifting capacity of 63 t and a portal for the standard Russian track gauge of 10.5 m.

The basis for the two cranes is the HMK 170 Mobile Harbour Crane. This crane normally has a tyre-mounted chassis which, in this case, has been replaced by a portal with a 6 m clearance height.

In Tuapse, coal and steel products are loaded onto railway wagons which run under the crane portal.



HSK 170 EG with a portal adapted to a 10.5 m track gauge located in the Port of Tuapse

## Novorossiysk

## Tuapse

## Russia

### Novorossiysk Opts for Travel Equipment Too

In 2002, it was Novorossiysk's turn. In addition to two conventional Mobile Harbour Cranes, Vladimir N. Kovbasjuk, the initiator of the Gottwald Portal Harbour Crane concept with travel equipment, ordered four HSK 170 EGs of the Tuapse type.

His aim was to equip the largest port on the Black Sea, with nearly 60 million tonnes handling capacity per year, with state-of-the-art equipment on rail and wheels and to guarantee the greatest possible flexibility during crane operation in the three major bulk handling docks.

HSK 360 EGL Portal Harbour Cranes with a custom-made portal unloading iron ore at Qinhuangdao, P.R. China

### Second Product Line Established

In addition to our range of Mobile Harbour Crane products, we have since developed an extensive series of HSK Portal Harbour Cranes.

This currently includes the HSK 170, HSK 260, HSK 300 and HSK 360 with lifting capacities of up to 120 t and radii of up to 56 m. In order to meet customer requirements, we can extend this HSK product line even further.

### Key Features of our Portal Harbour Cranes at a Glance:

- Individual portal solutions
- Portal with clearance heights of 4 to 8 m and track gauges of 10 to 20 m
- Choice of rail-mounted or tyre-mounted operation
- Special travel equipment with excellent manoeuvrability
- All the benefits of the proven HMK series

### HSK Portal Harbour Crane Product Range

Type	HSK 170	HSK 260	HSK 300	HSK 360
Maximum capacity on hook [t]	63	100	100	120
Capacity on hook [t] / Maximum radius [m]	23.4 / 38	26.4 / 44	33.4 / 50	44.4 / 56
Track gauge [m]	10 to 20			
Portal height [m]	4 to 8			

All the cranes can be powered by a built-in diesel-generator set or by an external power supply.



# HSK 170 EG

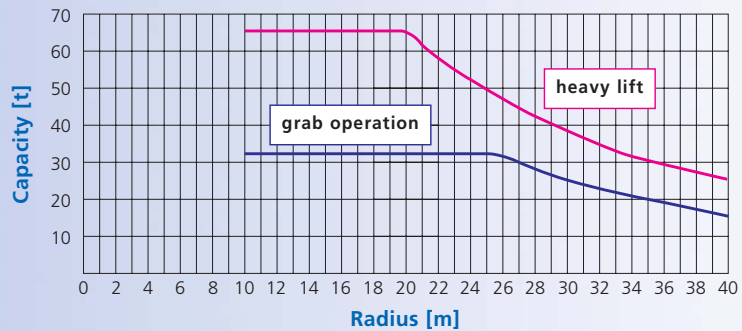
## Four-rope Portal Harbour Crane for Professional Bulk Handling

### HSK 170 EG Capacities

Radius [m]	Operating modes	Heavy lift	Grab
		on ropes [t] (75%)	on ropes [t] (50%)
10-18		65.7	32.0
19		65.7	32.0
20		65.7	32.0
21		63.7	32.0
22		59.7	32.0
23		55.9	32.0
24		52.7	32.0
25		49.7	32.0
26		46.7	31.6
27		44.2	29.8
28		42.3	28.0
29		40.2	26.8
30		38.3	25.2
31		36.5	24.0
32		35.0	22.8
33		33.5	21.6
34		32.1	20.8
35		30.7	20.0
36		29.5	19.2
37		28.4	18.2
38		27.2	17.5
39		26.3	16.8
40		25.4	16.0

### HSK 170 EG Technical Data

Capacities	maximum lift, on hook	63.0 t
	maximum lift at maximum radius (40 m), on hook	22.7 t
	grab operation	32.0 t
Working speeds	hoisting/lowering	70 m/min
	slewing	1.4 rpm
	luffing	45 m/min
Travel speed		40 m/min
Dimensions	Track gauge	10.5 m
	Portal clearance height	6 m
Weight (approx.)		300 t
Diesel engine		545 kW
Special features	travel equipment facilities	4
	propping pads	8



### Service

The service portfolio of Gottwald Port Technology also includes: A global service network including spare part stocks, field service, spare parts, full service contracts and 24-hour callout. These features and more make up the range of services guaranteeing support and continual success for customers.

For further information about our Portal Harbour Cranes, please enquire about our brochure on the complete line of HSK cranes.



Two HSK 170 EG cranes handling coal and steel products in Tuapse Commercial Seaport, Russia

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