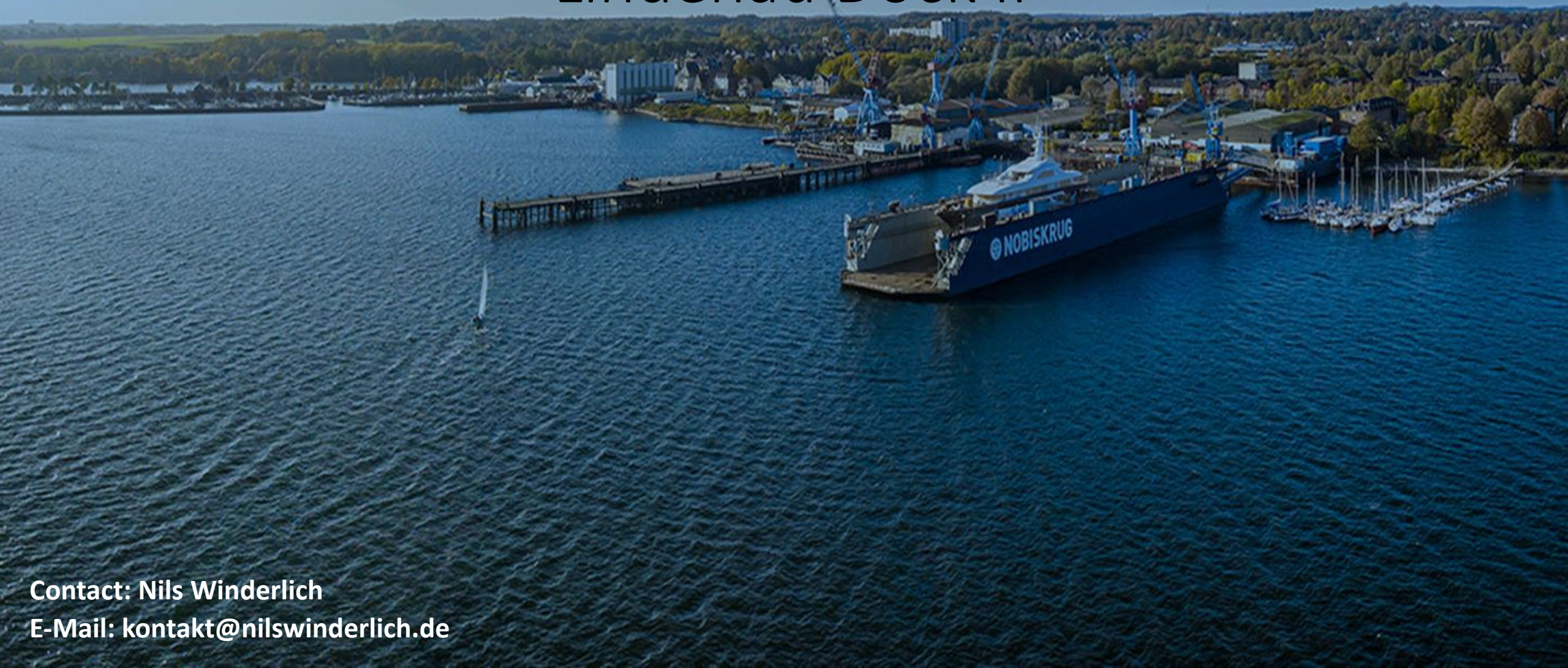


Lindenau Floating Dock

- Lindenau Dock II -



Contact: Nils Winderlich

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General Information

Main Data:

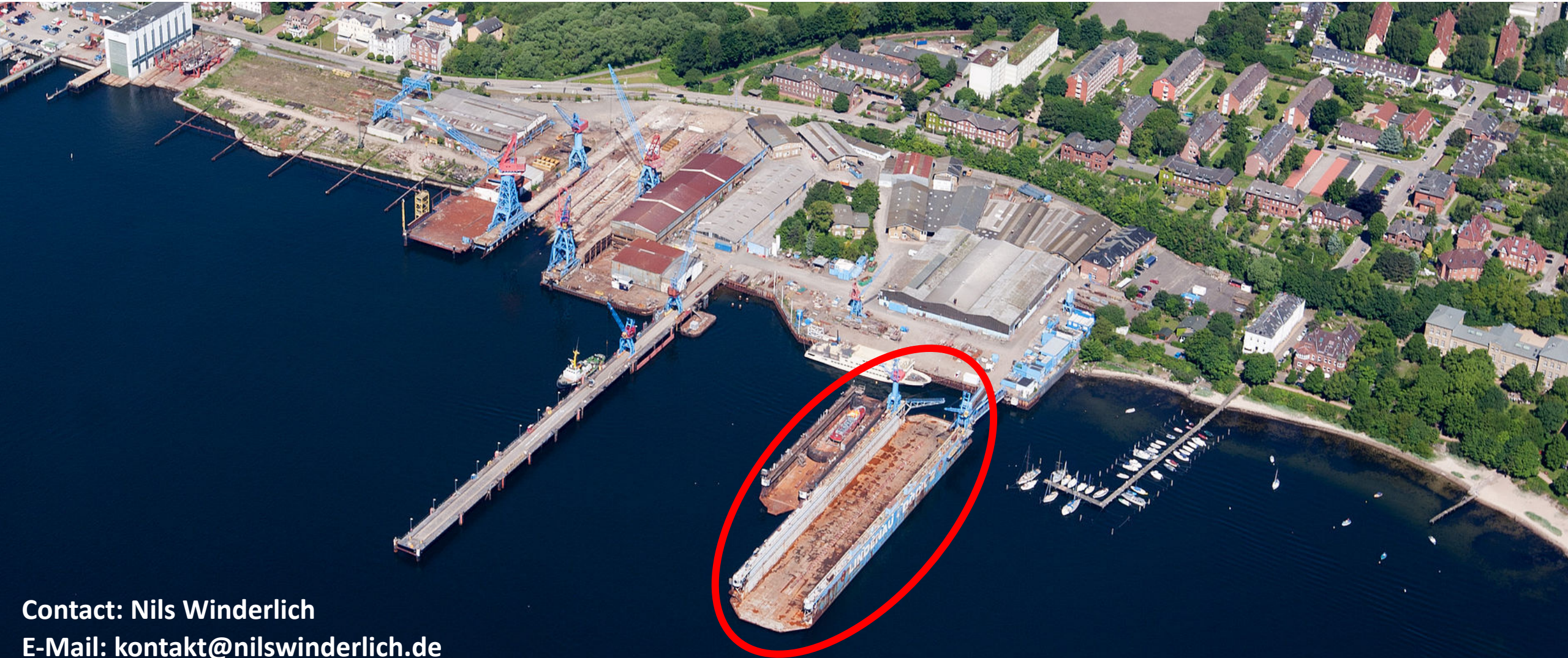
- Length: 164,50 m
- Clear inner width: 25,60 m
- High: 13,20 m
- Height of pontoon at centerline: 3,50 m
- Max. depth above docking blocks: 6,50 m
- Lifting capacity: originally 10.000 t. Today: 7.000 t.
- Last restoration: 2020
- Elevator on the right side and half of the Dock



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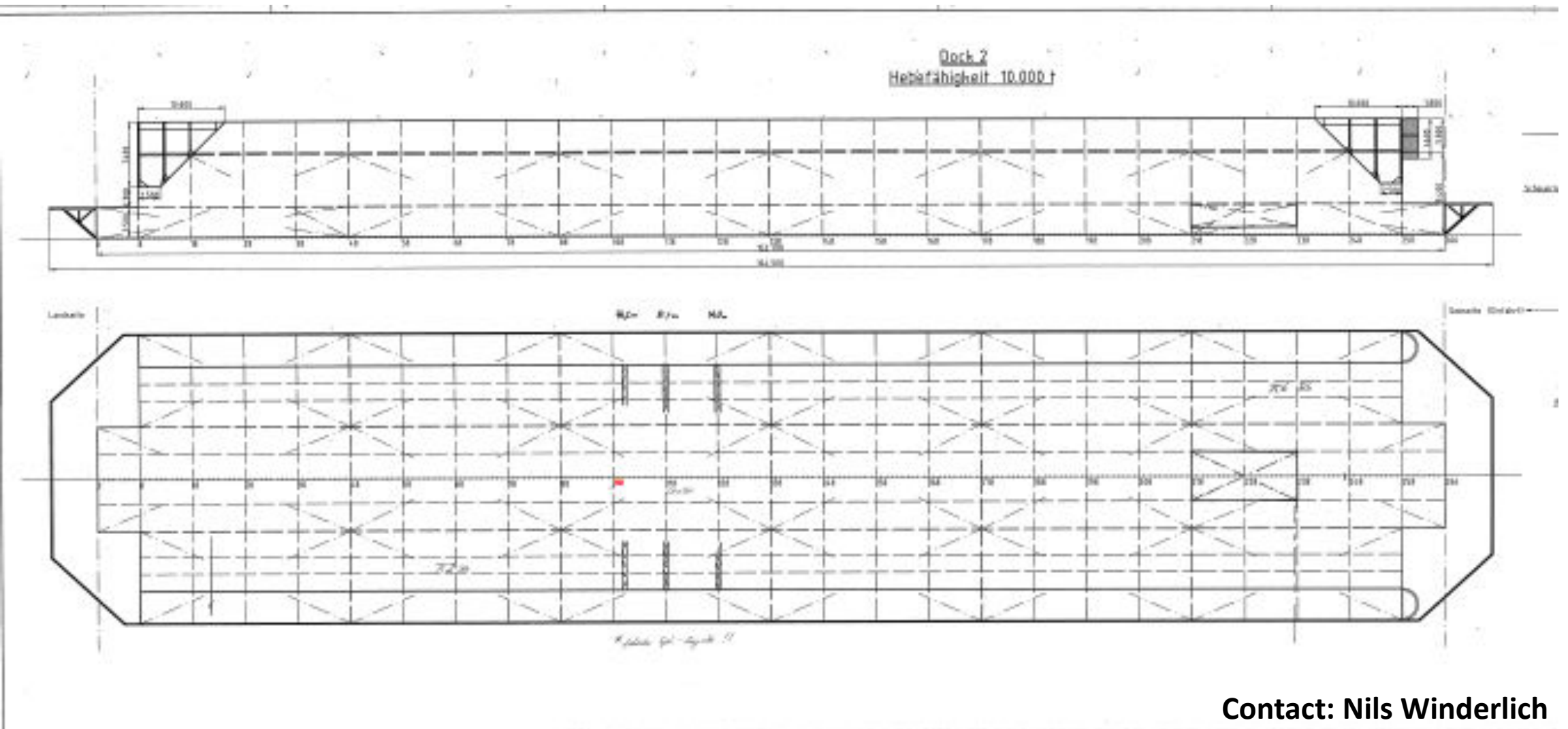
Momentary Position on the Lindenau area

- Christianspries 30, 24159 Kiel-



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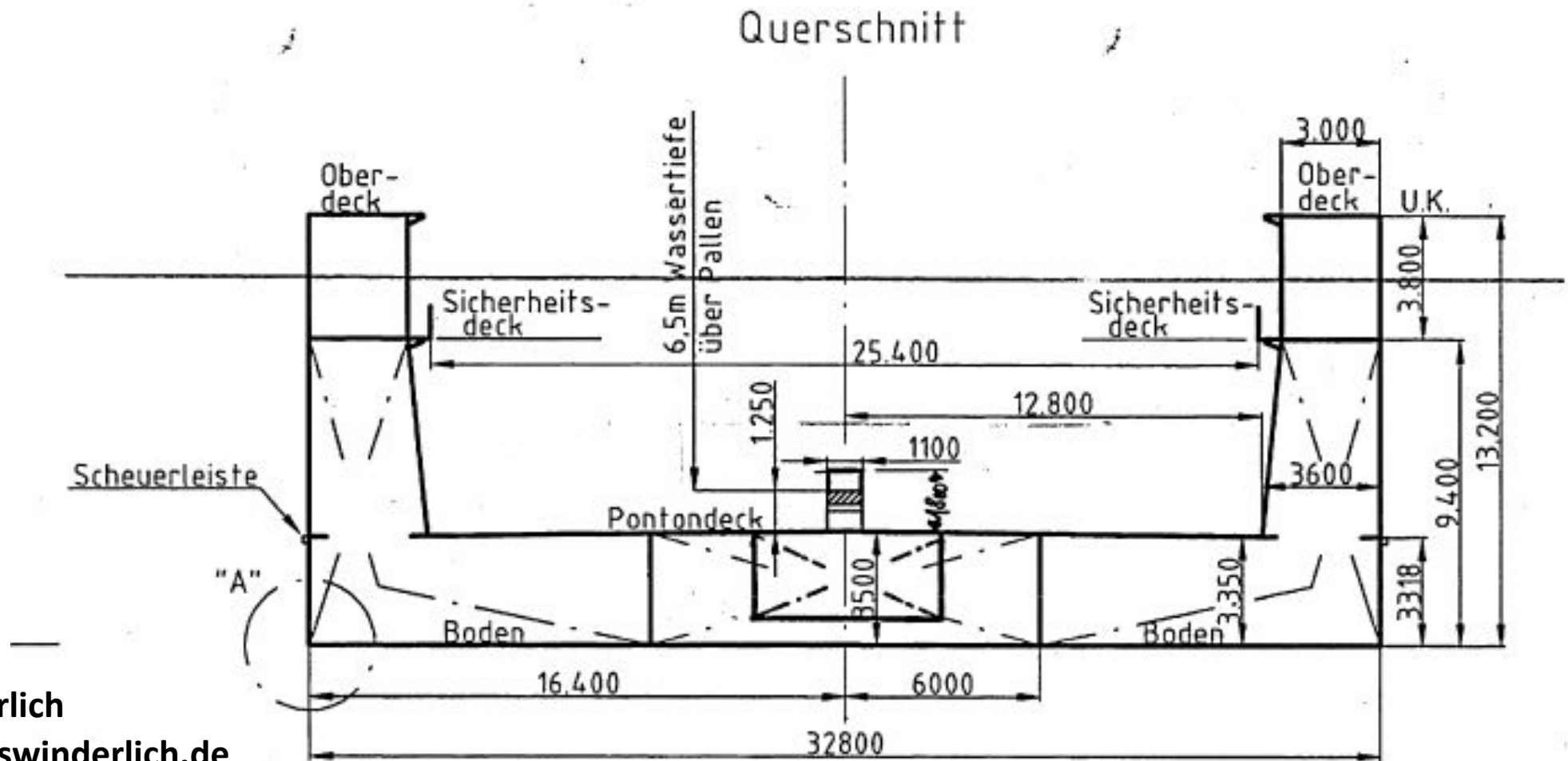
Different views



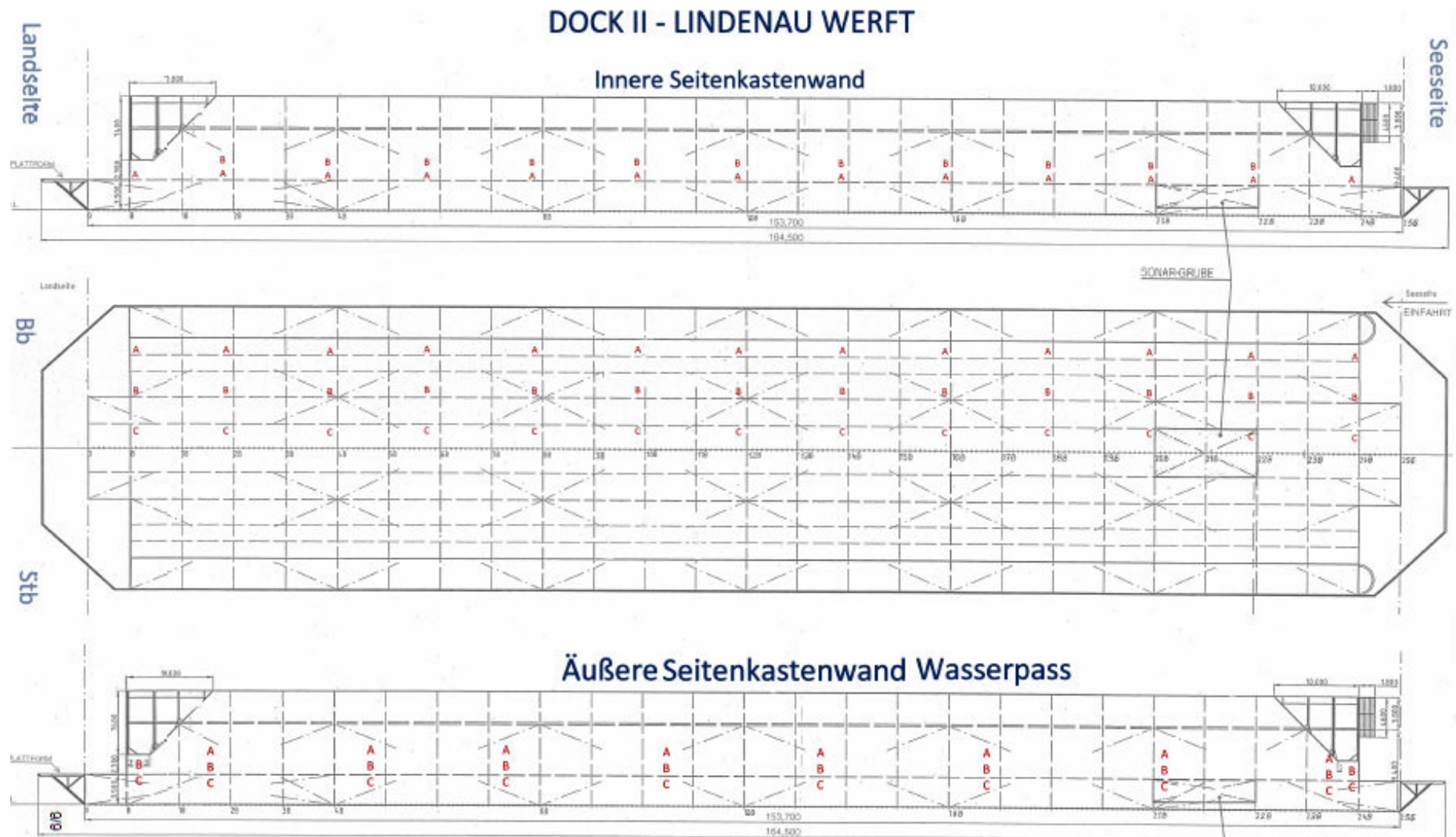
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Different views



Different views



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Ballast Water Tank System

- In total 18 tanks
 - > 6 along the centerline, 6 on starboard side and 6 on portside
- 4 ballast water pumps are located in each corner of the dock
- 4/5 tanks are connected via a collection main pipe with the pumps
- Each pump can be opened and closed by its own gate



Pump impeller

-> When the inlet valve is opened, seawater flows into the tank by gravity. The dock submerges

-> When the outlet valve is closed the pump begins to start. The Dock emerges

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Ballast Water Tank System

- The tank groups can be connected to one another by means of cross and longitudinal connections. If one pump fails, another pump takes over to empty the tanks
- Pumps and gate valves are electrically operated and controlled from the operator platform
- In emergency: above each sled in the dock is a crank, with which the sled can be operated manually



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Information to the Capstans

- In order to position and to fix the vessel during docking 6 capstans are located on both sides
- Pulling force for the capstans in the front an back: 8 t.
- Pulling force for the longitudinal center: 4 t.
- All capstans are equipped with towing wires



Capstan with towing wire

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Information to the Cranes

- Dock owns two cranes
- On each side of the dock one
- The cranes are located on crane rails and can be operated over the full length of the dock

	SWL max	SWL at CL	SWL at max outreach
PS	10,0 t.	10,0 t.	6,0 t. (25m)
STB	14,0 t.	6,5 t.	4,2 t. (22m)



Supply systems

Electrical supply

-> There is a connection for the electrical supply of the docked ship

Fire extinguishing system

-> Docks owns a pipe system with a total of 5 „C“ connections for fire water

Compressed air

-> Dock owns a compressed air line along the starboard side with several outlets



Freshwater supply

-> Dock owns a pipeline with various outlets for fresh water supply. The System runs lengthways on starboard side

Power supply

-> All Systems of the Dock are electrically driven by a medium voltage (6KV) shore connection. The Dock owns one transformer station with several transformers on the dock

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Main Pumps and Wedge gate valves

Main Pumps

- Docks owns 4 main pumps
- All 4 pumps have been restored last year
 - > Removal and complete dismantling of the pumps
 - > Reconditioning of the impeller, renewal of all bearings und seals
 - > Renewal of the drive shafts of the electric motor



Wedge gate valves

- All tank an crossover gate valves have been restored
 - > removed, dismantled, repaired and reinstalled
 - > The actuating linkages have been overhauled

Voltage System

Medium Voltage System:

- > One shore switchboard
- > Dock switchboard
- > All dock transformers
- > Medium voltage cables

Low Voltage System

- > Several renewals have been made in the last years

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Repair/Restore works 2020

- Potondeck of 400 m² deck plating and stiffeners
- Renewal of about 40 tank accesses including manhole covers and tank ladders



Progress of Renewal deckplating



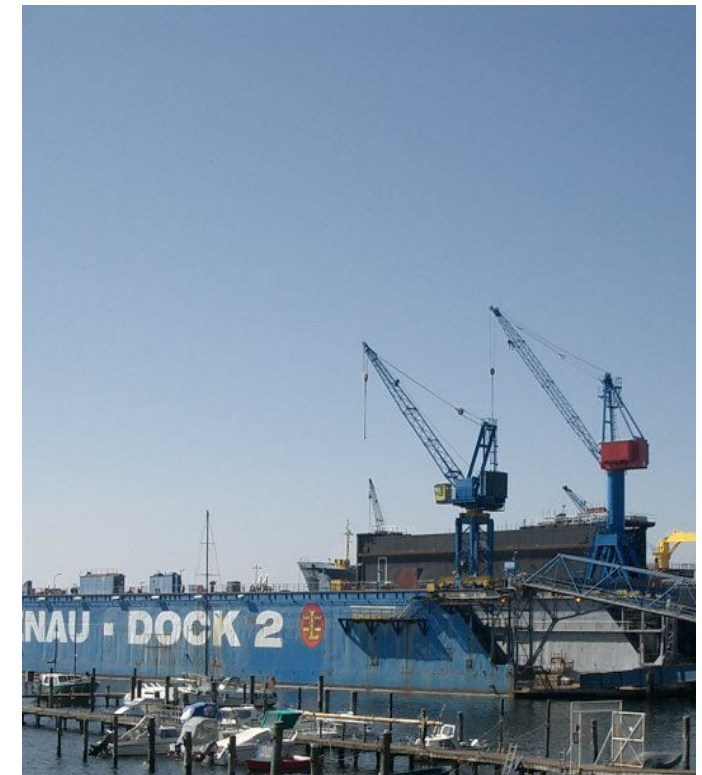
Renewed deckplating



New manhole cover

Longitudinal walls (inner and outer)

- Numerous insert plates have been installed to ensure tightness of the tanks and structural strength
- Dock inner and outer side walls have been derusted and coated



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