

replacement

RV SONNE



### Features

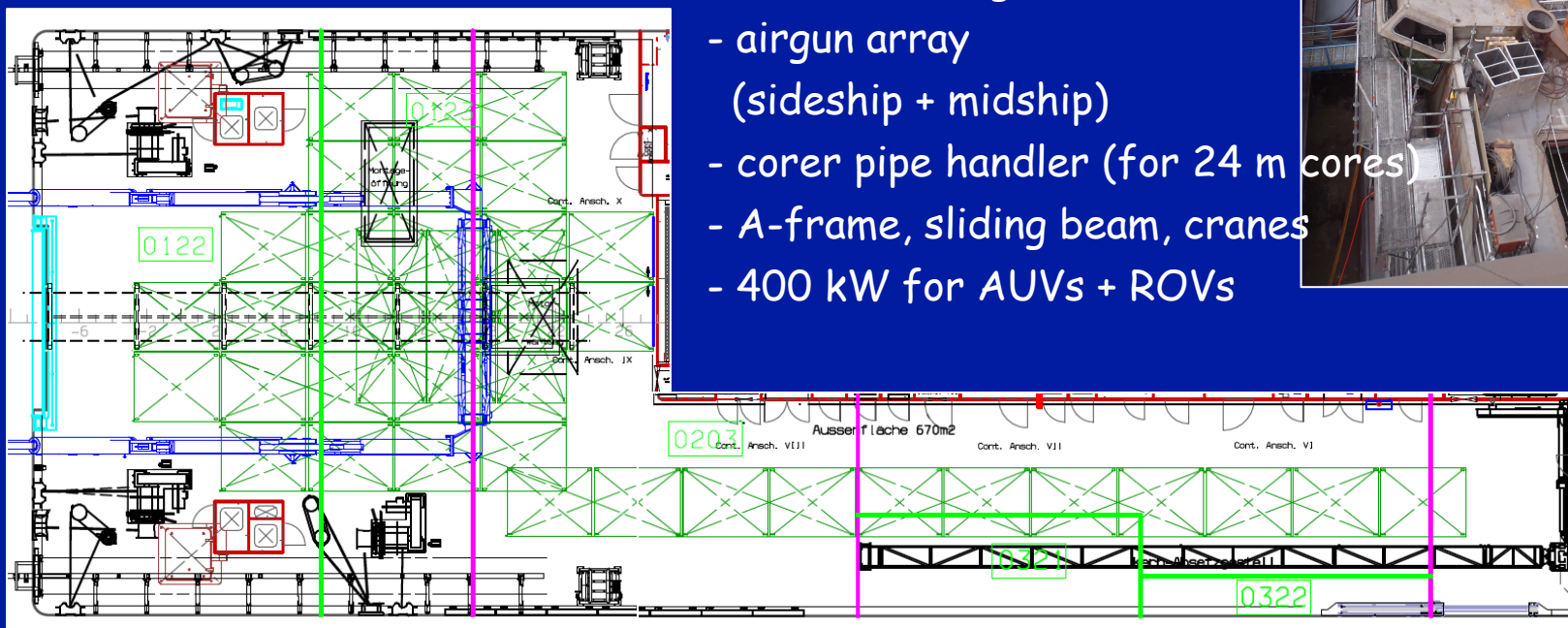
|                       |                    |
|-----------------------|--------------------|
| length                | 116,0 m            |
| width                 | 20,6 m             |
| draught               | 6,4 m              |
| displacement          | about 8.600 t      |
| speed                 | max. 15 kn         |
| crew                  | 32 pers.           |
| scientists            | 40 pers.           |
| propulsion            | diesel-electric    |
| endurance             | 50 days            |
| cables + wires        | max. 8.000 m       |
| scientific rooms      | 550 m <sup>2</sup> |
| working deck area     | 700 m <sup>2</sup> |
| 20'-container         | 25 (4 inside)      |
| scientific store room | 150 m <sup>2</sup> |
| ICES 209              | yes                |





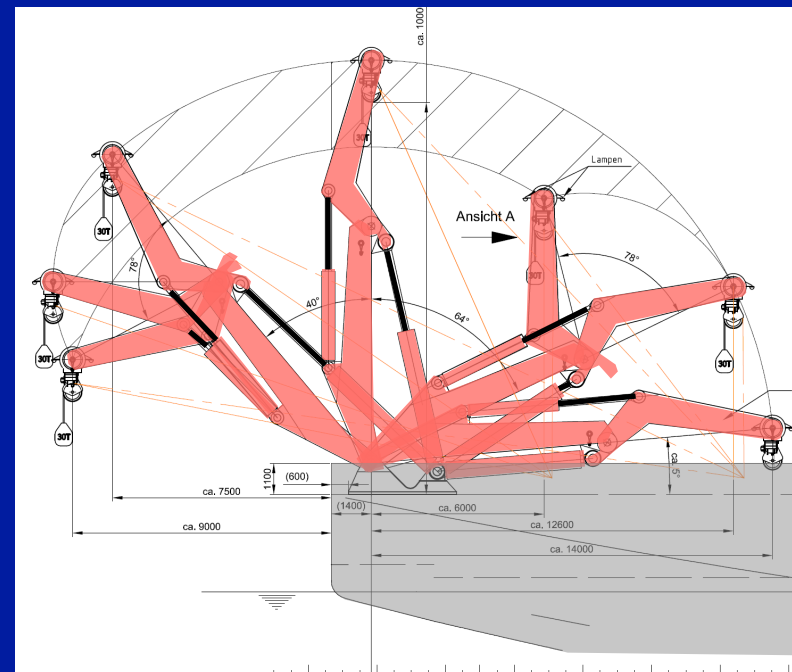
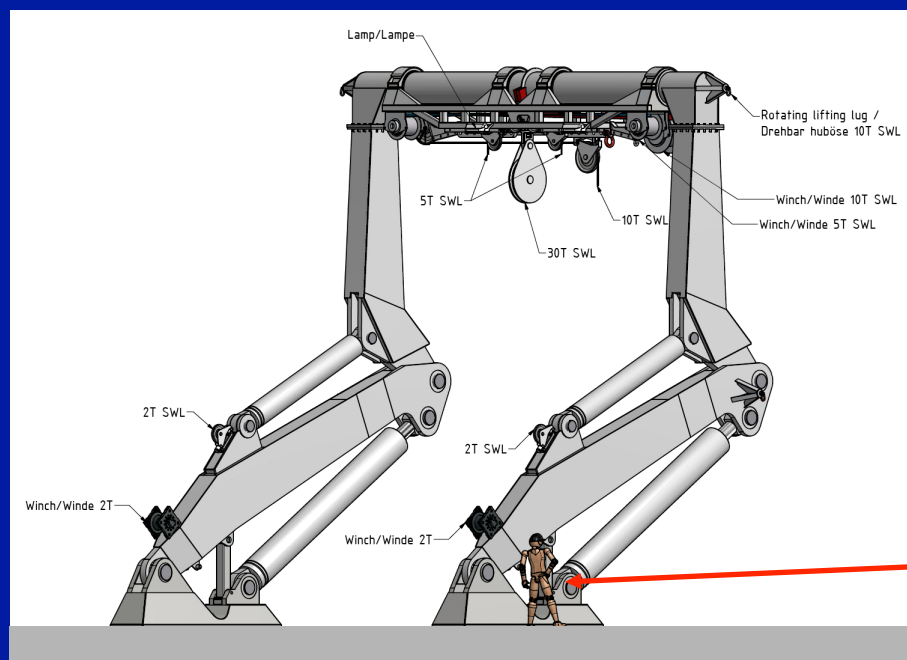
## Working Deck

- ca. 700 m<sup>2</sup>
- wood covered  
(65 mm, Bongossi)
- 30 x 10' container spaces
- M24 - screw grid
- airgun array  
(sideship + midship)
- corer pipe handler (for 24 m cores)
- A-frame, sliding beam, cranes
- 400 kW for AUVs + ROVs



## A-frame - folding

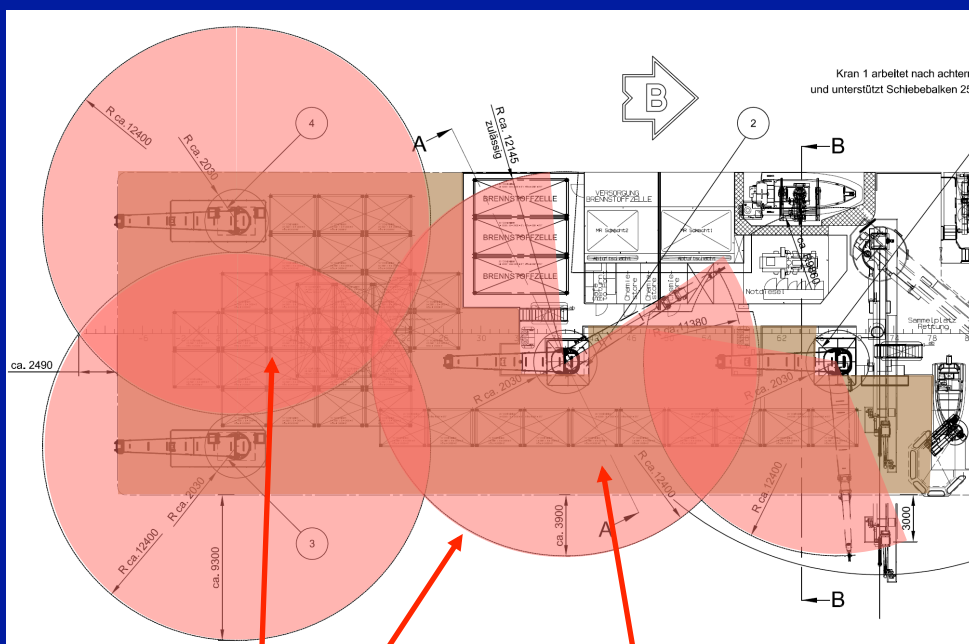
SWL 30 t  
 height 10 m  
 width 7.5 m  
 range 7.4 m behind stern to 12.5 m inboard  
 auxiliary winches  
 (1 x SWL 10 t; 2 x SWL 5 t; 2 x 2 t)



normal sized deckman

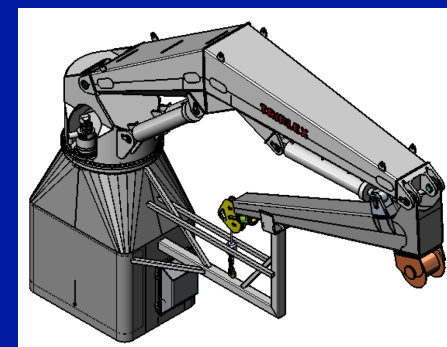
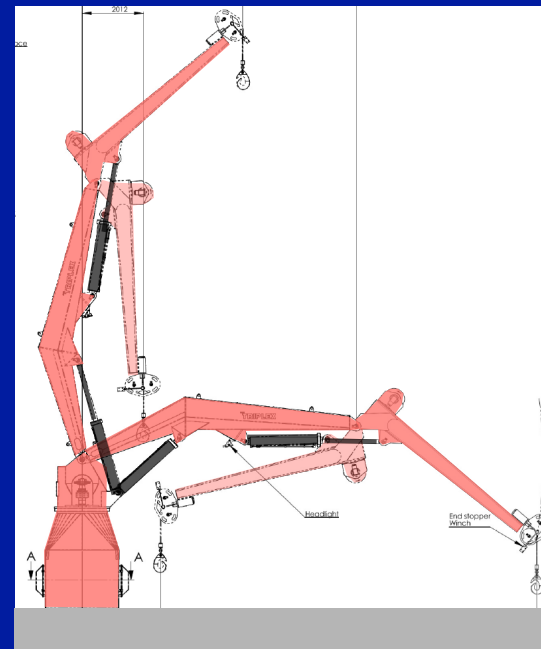
## Cranes

4 cranes cover the working deck area  
 in-shore SWL 12 t  
 off-shore SWL 7 t  
 range and height ca. 12 m  
 beside aft-deck 10 m



crane ranges

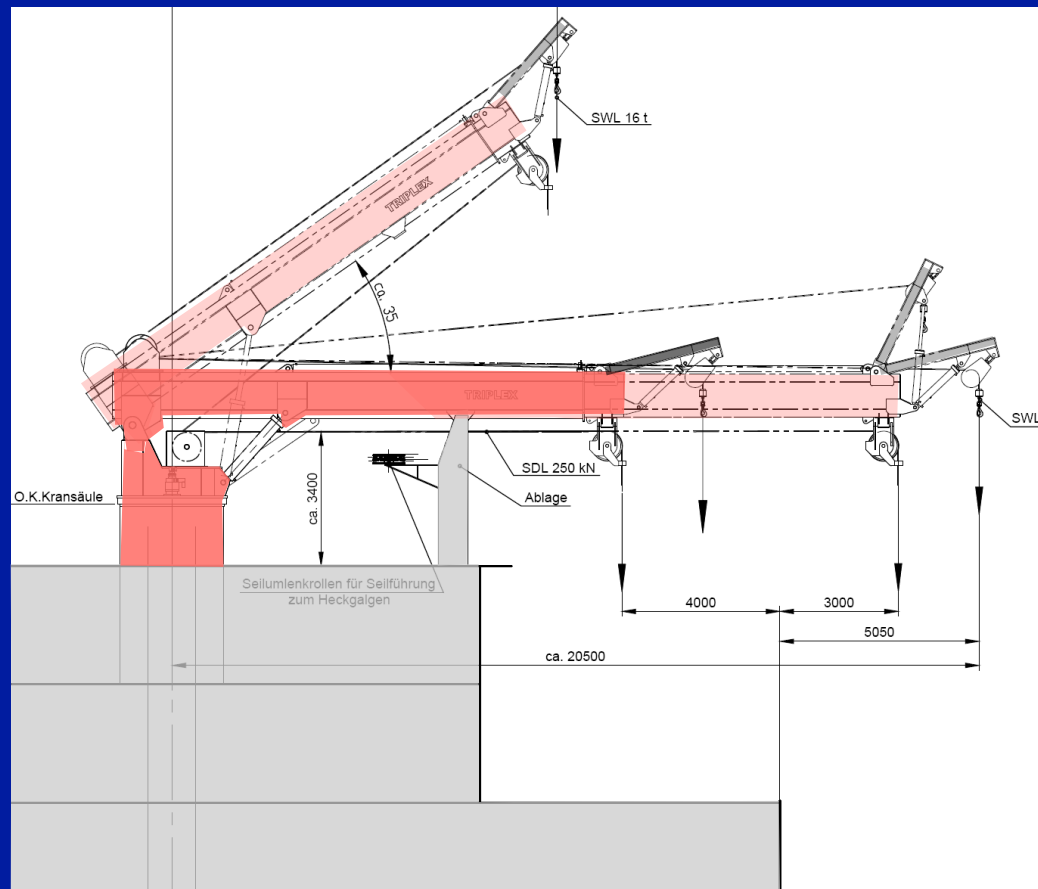
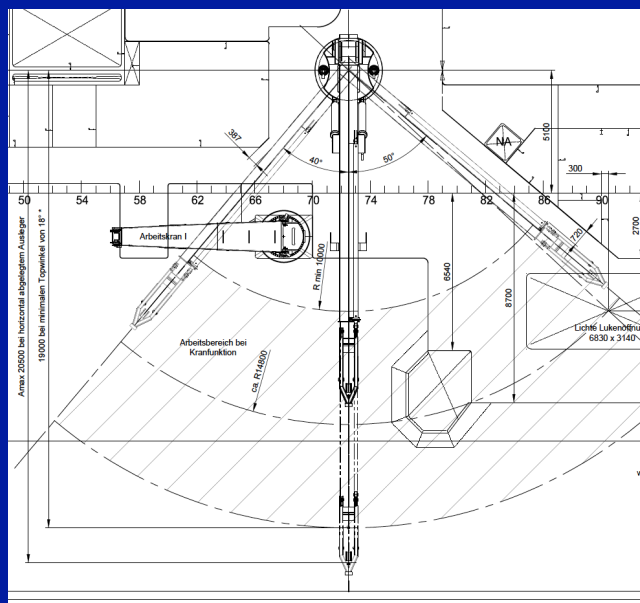
working deck



## Large sliding beam

installation at front part of working deck  
with crane function to load containers

|              |                             |
|--------------|-----------------------------|
| SDL          | 25 t                        |
| as crane SWL | 16 t                        |
| height       | 5.6 to 13 m                 |
| range        | 4 m inboard<br>3 m outboard |



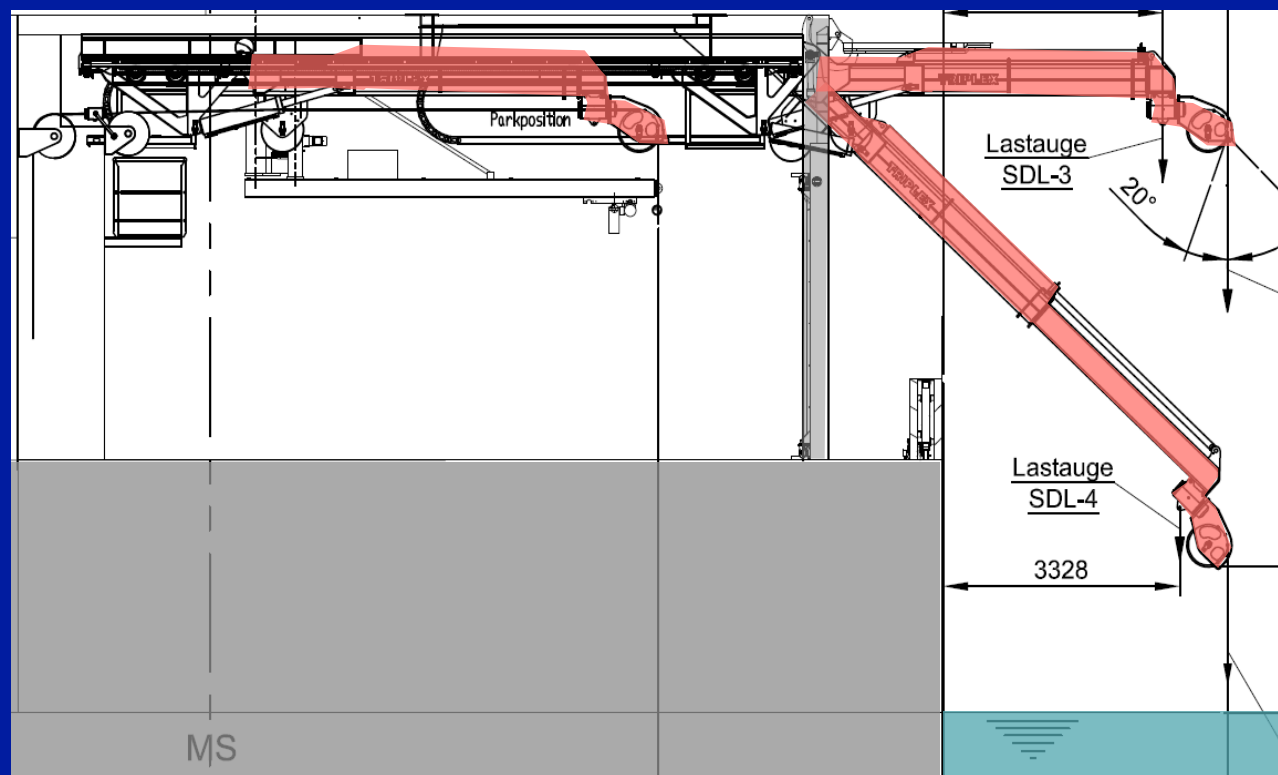
## Small sliding beam

installation inside hangar

SDL 7 t - lowered SDL 3 t

height ca. 5 m

range 4 m inboard to 4 m outboard



## Scientific winches

winches are installed inside the ship - cables are rinsed with fresh water and air-dried - winches are electrical driven and electronical steered

2 friction winches (150 kN) - one heave compensation (up to sea-state 5)

2 storage winches: 8,000 m; 18 mm Ø, glassfibre-hybrid- / one conductor cable / wire

2 cable winches (40 kN): 8,000 m; 11 mm Ø, glassfibre-hybrid- / one conductor cable / wire

1 serial winch (25 kN): 6,000 m; 8 mm Ø, serial wire

1 portable capstan (50 kN)

1 rewind winch (for changes of cables on board)

2 portable fishing winches (2 x 3,000 m Dyneema)

2 portable seismic winches (2 x 500 m Dyneema)

space for Dyneema friction and storage winch

winchroom with friction winches (green and blue) still 'open' during construction phase





RV SONNE  
will be ready  
for science  
in October  
2014



thanks for your  
attention