

A Word from the Management



The last months were spectacular. Our team has expanded with three naval architects, one structural designer and one mechanical engineer, who will become a naval architect in the next two years. Also new customers found their way to C-Job. With specialties in dredging and off-shore operations, these customers have found a reliable and high quality design and engineering partner in C-Job.

In the months ahead we will be active in the yachting, off-shore and dredging industry.

C-Job will also be present at the SMM in Hamburg from 7 – 10 september on stand 69 in the Holland Pavilion.

We are looking forward to be in touch.

Job Volwater - Managing Director

Visit our stand at the SMM in Hamburg!

Standnumber 69 in the Holland Pavilion.

Project in the spotlight:

The conversion of two vessels

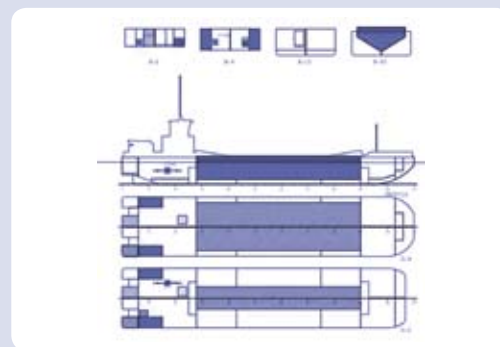


Picture: The vessel Johannes de Rijke.

Since January 2010 C-Job & Partners and Van Oord are investigating the possibilities to convert two of their split hopper ships, *Johannis de Rijke* and *Johan van Veen*. The conversion will include the expansion of the deckhouse with one additional layer. This will be done to expand the crew capacity from five to six persons and provide additional storage facilities.

Since split hopper ships have a deckhouse supported by hinges, the removal of the 'old' accommodation is not very complex. Connecting the old layer to a new layer is more challenging. This issue was investigated in a feasibility study. This study also focused on strength related issues and more important: the finding of the stability of the vessel. Dredgers load the spoil (mixture of water and soil like sand) most often in a liquid status; the free surface effects can be immense. This is especially the case with increasing density and wide hopper wells. Also for these vessels, this topic was a difficult issue, but finally solved with Bureau Veritas.

For the calculation of the stability of the barges the project team used NAPA. For this purpose, C-Job developed a special program inside NAPA in which all geometries can be rotated along the main rotation axis, after which the load cases could be simulated.



After the feasibility study had shown that the vessel could be converted, the basic engineering was executed. In this stage all class related items were solved. Following the approval process, the detail engineering was started. Before this could be done effectively, measurements on board the vessels were taken. For this purpose, a team of two C-Job engineers flew to Barcelona. Additionally, a few other issues on board the vessel were improved. This included improvement of the HVAC system and noise and insulation prevention. In this project C-Job was responsible for all engineering aspects of the conversion, covering all issues from feasibility study to the engineering of the interior. The final production and commissioning will take place after this summer.

**C-Job
Team Member:
Thijs Muller**



In the winter of 2008 I started working for C-Job. I was invited to apply for a function in a quite informal way. I handed in my CV and over a dinner I got to know C-Job. It was my first employer and for my first two jobs I was posted to Offshore Ship Designers and BureauVeritas. After that, I went on a sailing trip as a seaman on the 'Friese maatkast De Ideaal' for half a year to enjoy a half year off.

After that time, I came back to C-Job. Currently, I work for on a project for Ulstein Sea of Solutions and that gives satisfaction. Sea of Solutions creates the concept and basic design of offshore construction vessels like drilling-vessels, crane ships en pipe-lay vessels. I work in the designing team and mainly do the basic design of a crane ship annex pipe-lay vessel.

New C-Job Website: www.c-job.eu

C-Job will launch its new website in August. Of course, it will contain all the information you can find online now, but also has new features.

Company information

The new website will provide information on the company, the team members, work and projects at C-Job and our partners and information of our costumers. It will also contain details of our team members to make it easy for you to contact a specialist in your area as easy as possible.

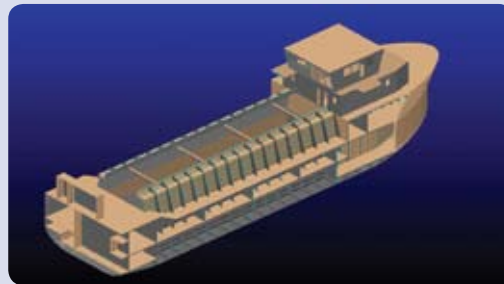
Newsletters

On the website you will find up-to-date information and news items. You can also look up all newsletters. It is possible to subscribe to our quarterly edition as well.

New!



Developments Use of NAPA Steel at C-Job



The general use of NAPA at C-Job has been discussed in earlier newsletters. Since spring 2010 we invested in NAPA Steel. This is a tool in NAPA that, like the geometric model that calculates the stability of the ship, builds the steel model of a ship. NAPA Steel uses the surfaces that have been used to create the compartments, to create steel panels with braces, openings, knees and holes, and so forth.

The tool works utmost effective, because of the creation of the standard division of plates or profiles, which can be ascribed to the panels. Changing this standard will have consequences for all related panels. Anyhow, after ascribing standards in NAPA, exceptions can be made per panel. After shifting the surfaces, the steel model will be updated automatically. This tool is also of use for aluminium constructions like yachts.

NAPA Steel is very effective in the concept and basic phase of a project, because it enables the engineers to create a complete construction plan in a short time through the use of standards. Weights, welding lengths and paint surfaces can be followed real time or even be optimized with a generic genetic optimize module in NAPA. Even template drawings can be exported as DXF for 95% automatically.

