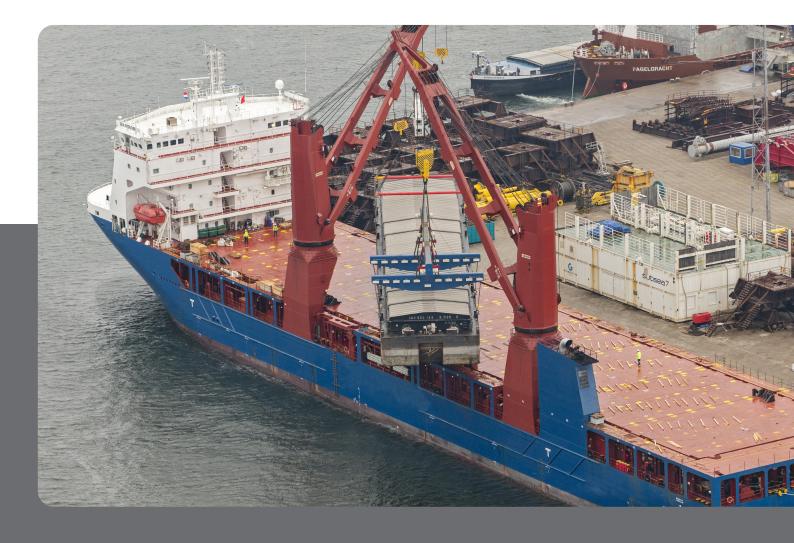
## CARGOTECH A/S



CargoTech A/S | Pedersholms Allé 109 | DK-7100 Vejle

Phone: +45 4054 6770 | Engineering@cargotech.dk | www.cargotech.dk



## INTRODUCING CARGOTECH A/S

CargoTech A/S provide engineering solutions to the customers who wants a dedicated and professional solution whether it is small or large.

The engineering in-house crew provides all technical supports and other services which are related to the maritime business in compliance with applicable marine standards and practices.

By combining our key competencies within maritime heavy lift, projects, land transport as well as in depth knowledge of equipment and lifting gear, we offer a tailormade solution from factory to construction site.

Using the most advanced technology, professionalism, and cooperation at all levels we strive to secure our customers the highest possible standards in efficiency, safety, and reliability.

CargoTech is your flexible and professional partner, ready to perform 24/7 - 365

Contact us now: engineering@CargoTech.dk / +45 4054 6770



# ENGINEERING AND PROJECT MANAGEMENT

#### **PORT CAPTAINS**

On behalf of cargo owners, freight forwarders and vessel operators we perform the role of cargo superintendent / port captain. We can create detailed stowage planning in LoadPlanner CAD, load- and discharge sequence, lashing plans, on-site attendance, and labour management.

#### **SURVEYS**

As cargo surveyor we can provide you with a comprehensive survey of your cargo for any scope desired, at any points of its logistic journey.

As warranty surveyors we provide independent technical review and approval of operational transport methods for high value and/or high-risk projects, as well as on-site attendance

#### **PROJECT ENGINEERING**

Our team of engineers can provide complete method statements, which, among others, includes lifting designs, rigging designs, securing plans, deck strength calculations etc. We use the common guidelines from IMO as well as DNVGL and ST

#### PROJECT MANAGEMENT

CargoTech can provide management of your project from tender phase to execution phase.

#### 3D MODELLING FEM & MOTION ANALYSIS

We have access to industry leading 3D modelling and simulation software. As part of feasibility studies and project demonstration we do stress analysis for cargo securing and hatch stress analysis, and load spreading design. To ensure safe and efficient operations we have access to ABB's Octopus software to do motion analysis.

"CargoTech A/S" is proud to announce that we have passed the new standard, and are now ISO 9001, ISO 14001 & ISO 45001 certified.

ISO is an International Standard that specifies requirements for Quality Management (9001), Environmental Management (14001), and Occupational Helath and Safety (45001)







### **PORT CAPTAIN SERVICES**

#### **PRE PLANNING**

We will ensure that all pre planning of cargo is done to our client's requirements. Pre planning is done in LoadPlanner CAD and/or AutoCAD. For all calculations we are using common rules & regulations, as well as recognized VIDECK software for lashing calculations

- Stowage planning
- Load- and discharge sequence
- Lifting- and rigging designs
- Lashing calculations
- Mooring calculations
- Stability calculations

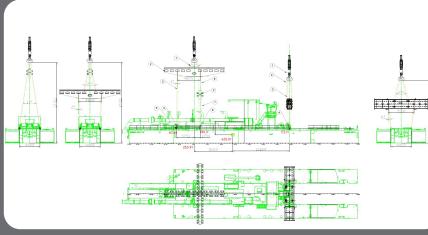
#### **REPORTING**

We will keep you, as our client, updated on any work progress, daily. If any major problems or safety issues are encountered then with immediate effect.

A detailed report with high quality pictures, will be distributed after completion of operations.

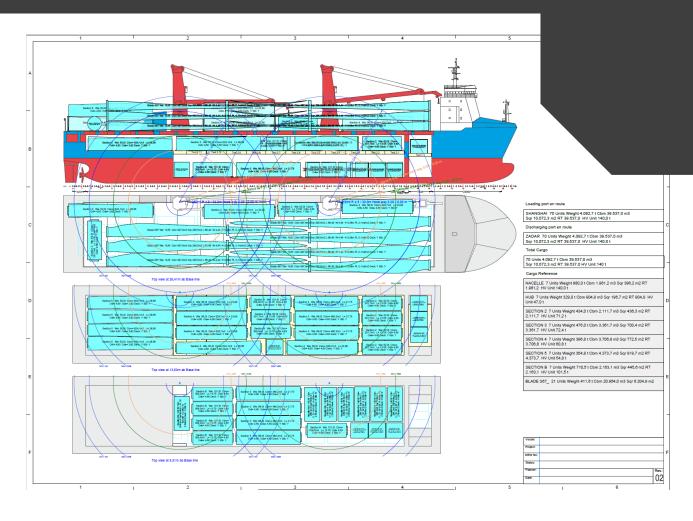
#### **EXECUTION / ATTENDANCE**

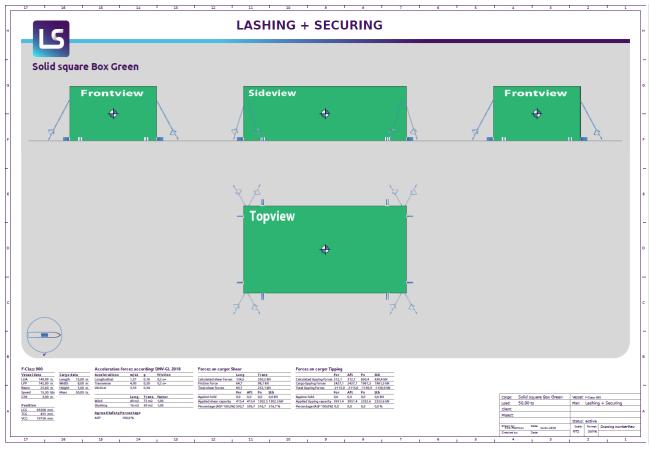
During the execution phase, we will attend with experienced personnel, during load- and discharge operations.











## FLYING SQUAD



The "Flying Squad" is a specially selected group of welders and crane drivers. These experts respond to your logistic issues and time depent work and can be mobilized fast.

Our "Flying Squad" is a team of specialist covering the most common cargo related work, such as:

- Crane driving
   They are certified crane drivers, who are used to handle heavy and wind/offshore cargo
- Welding team
   Our welders will perform any welding
   required. They are engaged, ussualy, in
   heavy cargo, wind cargo and offshore
   cargo, where demands and
   requirements are highest
- sea fastening and securing of cargo
   We have a team of lashers, who can assist the crew, or ordered to do all the lashing on board a vessel.



### **SURVEY SERVICES**

CargoTech combines profound knowledge with local on-site verifications. We offer surveying services, which are accompanied by sophisticated reports, including high quality pictures, detailed information, and best practise solutions from our team of experts.

Our team consists of engineers,

Naval Architect and master

mariners





#### **SUITABILITY SURVEY**

CargoTech offers an independent, overall visual, inspection of the vessel, to determine the suitability for the proposed voyage and operation, note and report defects or deficiencies.

The inspection is carried out either at the beginning and/or the end of a charter contract, a voyage or if the vessel is for sale.

Our suitability surveyors also include associated equipment, gear and personnel used to accomplish or assist in specific tasks and vessel operations.



#### **PORT SURVEY**

To continuously deliver your cargo at the highest possible standards we will conduct a local survey of the port(s) selected. CargoTech Engineering will survey and report all necessary parameters, as well as advantages and disadvantages, accordingly.

#### **CARGO CONDITION SURVEY**

CargoTech offers pre-load surveys, which is an important part of the complete transport chain. We are acting as your representative to make sure that the cargo do not have any damages prior to loading, that cargo is stored in the correct location and protected from all possible hazards.

#### **MARINE WARRANTY SURVEY**

CargoTech conducts MWS to support the insurance policy of the client when shipping cargo. During the loading and discharge processes, we liaise with all parties involved and agree on the safe and constructive procedures that will be used.

Prior the operation, all technical documentation and calculations have been approved by our in-house engineering team.

All cargo and its seuring is inspected before and after operation, and its condition is recorded in detail.

Throughout the process, our surveyor will inspect the lifting gears, stow preparations, and lashing requirements, as well as documenting with photographic evidence, and taking chronological written notes.

### **SURVEY SERVICES**

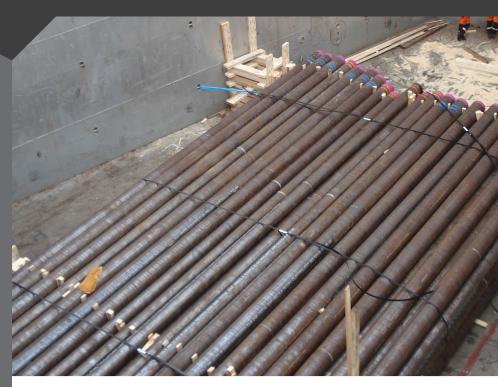
#### **DRAFT SURVEY**

We provide draft surveyors to determine the weight of bulk cargoes, such as iron ore, coal, steel scrap, grain etc., loaded onto, or discharged from yessel.



#### **DAMAGE SURVEY**

In the event of cargo and/or equipment damage, CargoTech Engineering offers support with a comprehensive and objective inspection of the incident, followed by a detailed report with pictures and guideline, on the next actions to be taken, if the cargo/equipment needs to be recovered, reloaded and/or repacked.



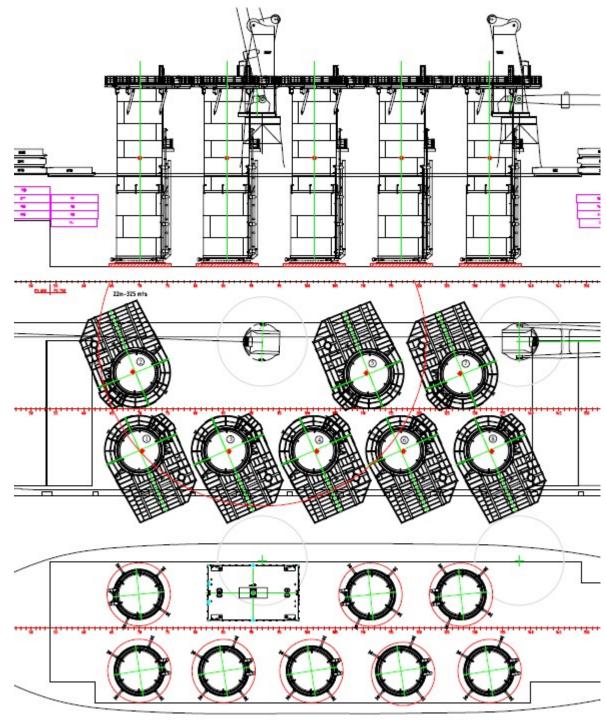
#### **LOADOUT AND OFFLOAD SURVEY**

CargoTech offers loadout and discharge supervision to verify the operation and to ensure that the cargo is being handled in a correct and safe manner.

The surveyor will ensure that the quality and safety requirements are being met, and the cargo is handled according to our client's requirements.







#### **FEASIBILITY SURVEY**

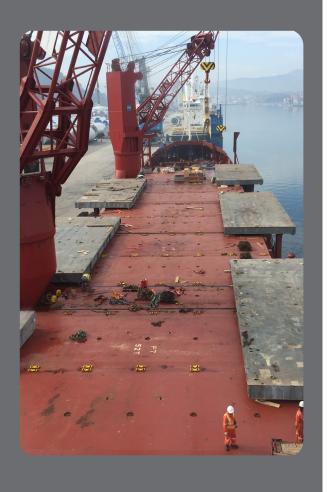
Feasibility studies cover a wide range of topics. In theoretical terms, a feasibility study is an assessment of the practicality of a proposed plan or method. It can be a package of various technical drawings, such as lifting drawings or transport solutions, which help identify selected equipment suitability, as well as define technical parameters

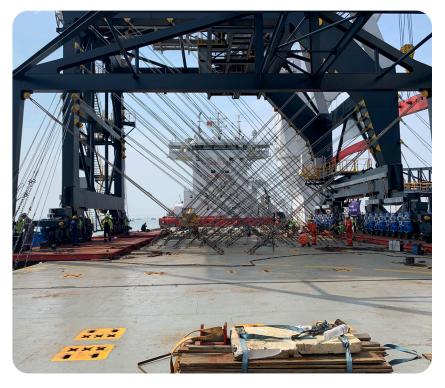
### PROJECT ENGINEERING

CargoTech's team can provide detailed method statements, to ensure the safe transport of your cargo. This can include the design of lifting arrangement, securing plans, 3D simulations, motion analysis & FEM calculations

The method statement are completed in cooperation with our client requests and in accordance with the rules and regulations in force (IMO, DNVGL, ST)

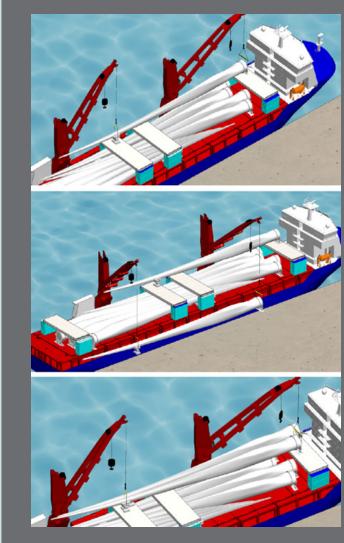






### PROJECT MANAGEMENT





#### **PROJECT MANAGEMENT**

We can offer you a plan where you can free up time and save money.

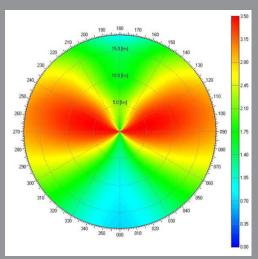
Already in the tender process of the project, we will step in and advice on ship types suitable for the project, and make preliminary plans. That will give you free hands to work out the commercial aspect of the business.

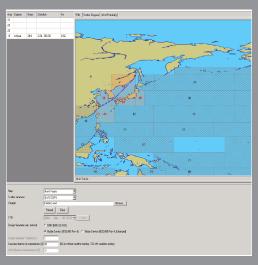
When project becomes reality, we will be running all technical aspects of the transportation, including communication with client technical department, surveyors etc. CargoTech will produce the method statement, following the guidelines given by the client. We will also attend pre load meeting, cargo inspections, load- and discharge operations etc.

With CargoTech in charge of your project, you will have a reliable and Professional partner, with expert knowledge in-house.

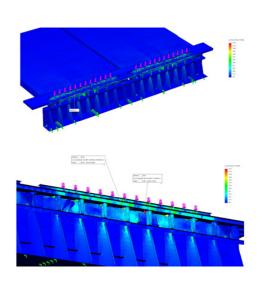
## 3D MODELING - FEM ANALYSIS

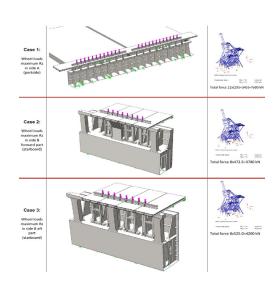
OCTOPUS Motion Analysis





SolidWorks FEM Analysis of hatch covers





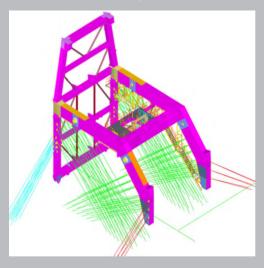
SolidWorks 3D Simulation Assembling of conveyor belt

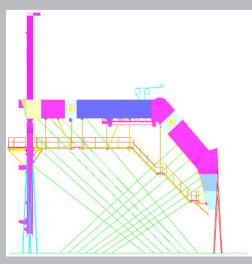


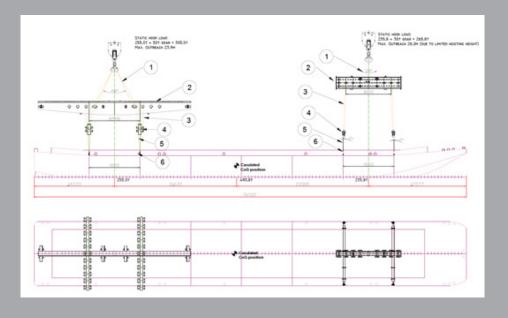


## MOTION ANALYSIS - AUTOCAD DESIGN

AutoCAD
Complex sea fastening design of 696,0mt Shiploader







AutoCAD Rigging solution, load and discharge of 500mt riverbarge

AutoCAD Lifting solution for discharge of 287,8mt column

