

The port journey of power plant units

Find out how we transship heavy-lift units into a barge



Port of
Antwerp
Bruges

In tune with the world



Precision planning and seamless coordination

Transshipping complex and heavy-lift project cargo can be quite a challenge, to say the least. But at Port of Antwerp-Bruges, it is smooth sailing. Here, you'll find the right experts, ready and able to take on your most challenging cargo - within the projected budget and time. They'll ensure precision planning, seamless coordinating and handling, always taking your specific cargo requirements into account.

But how do we handle your project cargo, exactly? Let's walk you through the entire lift-on/lift-off process. In this case: the cargo consisted of transformers, rotors and generators and was to be transshipped from Antwerp onto a barge heading for a power plant in Germany.

What made this project cargo particularly daunting were the diversity, dimensions and weight of the units, totalling up to 958 tons:

- Rotor 1325 x 185 x 175 cm / 76 tons
- Generator 970 x 430 x 470 cm / 318 tons
- Turbine 1090 x 520 x 502 cm / 330 tons
- Diffuser 520 x 500 x 260 cm / 4.1 tons
- Transformer 1050 x 392 x 420 cm / 230 tons



1. Planning your cargo project

With project cargo, **precise pre-planning is crucial**. **Not only does it ensure efficient operations**, it also avoids risks and reduces costs. A shipping agent coordinates and plans the project in great detail – from stowage plan, lashing points and lifting gear to the loading and unloading by the ship's own crane.

Then, the agent procures the terminal manager with a **complete technical file** on the nature of the cargo, the necessary handling and lifting requirements, lashing material, weight and centre of gravity, ...

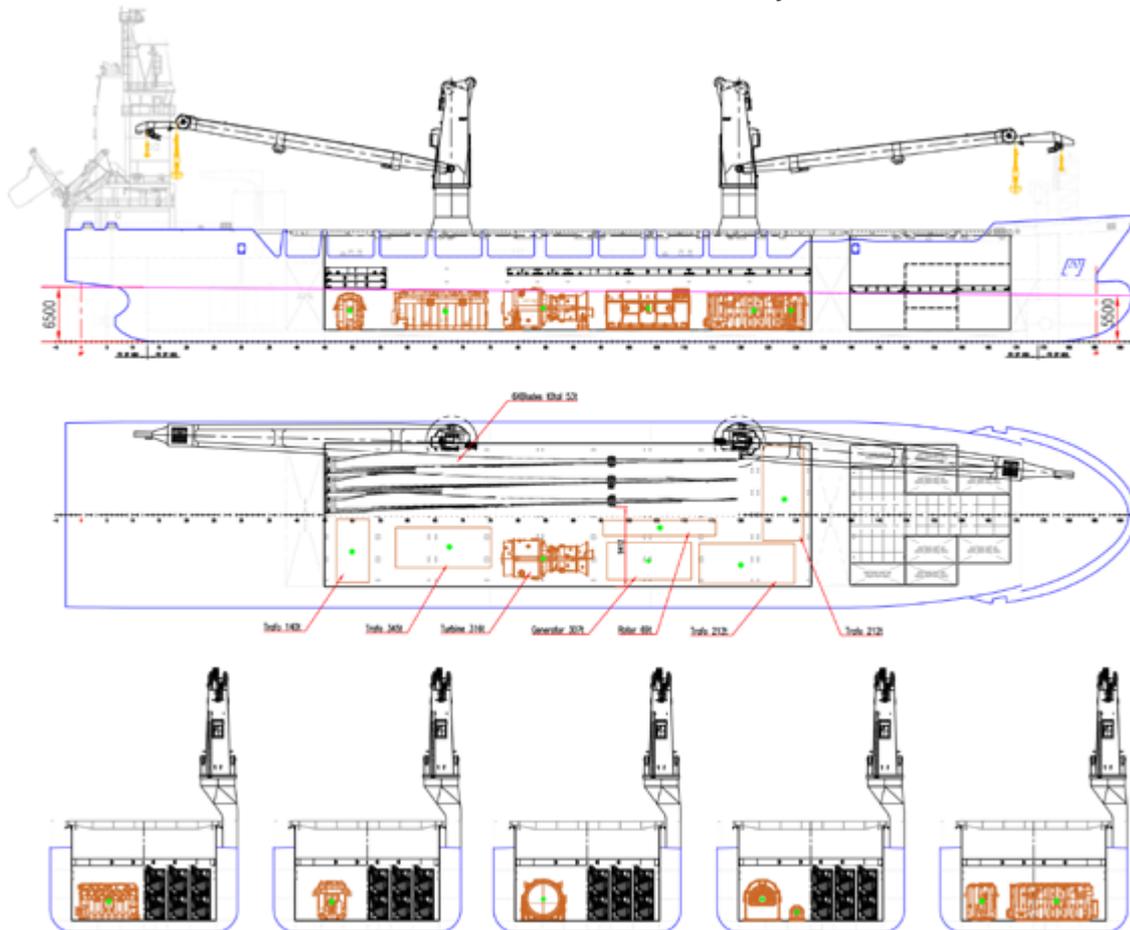
Based on this data, the terminal manager prepares the planning of the operations. He determines the most suited docking quay, schedules the required dock labour, ensures smooth pre- and onboarding, and holds the right equipment and storage capacity.

DID YOU KNOW? Port of Antwerp-Bruges is proud to have a dozen independent, expert breakbulk terminal operators with modern equipment and state-of-the-art facilities. To **offer you ultimate flexibility**, we offer specialized **storage** for cargo pending the need for delivery. Moreover, the wide choice of **service providers** in the port ensures **competitive prices**.

2. Calculating with great precision

Project cargo is all about **attention to detail** during preparation and coordination. That's why it is of the utmost importance that ship owners procure calculations for complex projects well before shipping dates.

- **Calculations.** Ship owners make calculations and procure precise planning documents to ensure smooth and damage-free operations.
- **Pre-calculation of ballasts.** Based on the ballast calculations, the ship's captain fills the ballast tanks with water during unloading to prevent the ship from keeling.
- **Delashing cargo.** Minute technical drawings with lashing and rigging details enable crew or specialised dockers to delash cargo efficient and safely.



3. Preparing for release

All cargo on ocean vessels is lashed and secured to make sure it doesn't shift during transport. Once the ship has arrived, a **specialised company** carefully removes all lashing material. At Port of Antwerp-Bruges, a great number of these experts work with the highest care and precision to avoid any damage to the cargo and to ensure the personal safety of everyone on board.

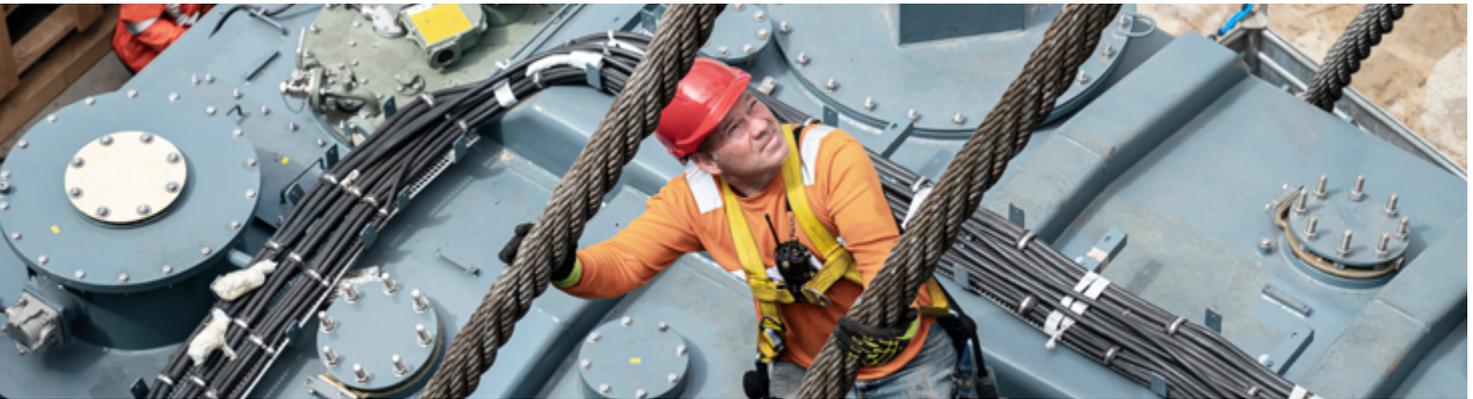


4. Selecting the right equipment – on ship and shore

At Port of Antwerp–Bruges, shipping companies can rely on well-trained project cargo specialists to handle their cargo. They strictly follow specific rules to maintain high quality operations.

In consultation with the shipping agent, the terminal manager decides on the use of cranes and handling

equipment – always in function of the required operations and cargo components. For the transshipping to be successful, the barge operator, shipping agent and terminal manager communicate clearly and timely with one another and remain in close contact during the whole operation.



DID YOU KNOW? Safety is our number one priority. All of our breakbulk terminal operators have the very latest safety, quality and environmental standards in place. To ensure the personal safety of our people, dockers are required to wear fall protection harnesses when working at heights.

5. Unloading the cargo is all about collaboration

Unloading project cargo is very precise work. Therefore, a **second-by-second** communication between the crew, the crane operator and the safety operators is required, to avoid collisions or damage.

Dockers on the ship and on the quay work in tandem with the crane operator. The lighter and heavier cargo components are unloaded, using the appropriate equipment in the most efficient way. In a transshipment model like this, the pieces are immediately loaded on the barge, which saves movements and time.

DID YOU KNOW? The unloading of one unit of the project cargo can take up to 2 to 3 hours. But then, **we leave nothing to chance.**



6. Transshipping: directly into a barge

The barge transporting the cargo from Antwerp towards its final destination in Germany is moored alongside the sea vessel. That way, the cargo can be loaded directly onto the barge. To ensure **a seamless, correct and timely ballasting** of and weight spreading on both ships, the captains of the barge and sea vessel are in direct communication at all times.



“When using the ship’s cranes, the shipping company is responsible for unloading the cargo damage-free while ballasting the ship. The supercargo supervises and ensures all operations are performed safely.”

Ann De Smet, Key Accountmanager Dry Bulk Breakbulk RoRo

Let us do your heavy lifting

Shipping your project cargo by sea instead of by air offers two major advantages: lower cost and increased capacity.

At Port of Antwerp-Bruges, heavy lift vessels carrying your cargo get all the space, specialised handling and care they need. Depending on its size, weight, cost, expertise, lead time and risk, you’re sure to find the **vessel type that best suits your project**:

- **Multipurpose & heavy lift vessels:** these versatile carriers are able to combine different types of cargo, making them popular vessels for project cargo shipping. They come equipped with crane vessels of different capacities:
 - multipurpose vessels: non-gearred & gearred less than 100 t SWL (Safe Working Load)
 - project carrier and heavy lift vessels: combinable lifting gear of over 100 t SWL
 - premium project carriers: combinable lifting gear of over 250t SWL
- **RoRo cargo ships/vehicle carriers:** these vessels are able to carry any type of wheeled cargo such as automobiles and heavy machinery. Equipped with a high capacity ramp to roll cargo on board on mafi trailers.
- **Semi-submersible vessels:** ballast tanks can be flooded to lower the deck below the water’s surface to move large cargo into position.
- **Container vessels:** for project cargo on flat racks, open top containers.

Port of Antwerp-Bruges would like to thank Katoen Natie for their generous collaboration with this case.

Check regular updates on topics like project cargo and breakbulk at www.portofantwerpbruges.com

Subscribe to our [monthly newsletter](#)

Antwerp-Bruges Port Authority
Zaha Hadidplein 1
2030 Antwerp
Belgium
portofantwerpbruges.com