



ROYAL  
**WAGENBORG**



INTERIOR RECEIVER  
CLIENT NAME:  
CLIENT:  
  
PACKAGE NO. 1-2885-0001G-014-7400-0001H-0001H  
GROSS WEIGHT 21530000078200007  
NET WEIGHT 133000000000000000  
DIMENSIONS (LxWxD) 52725 X 3200 X 4835 CM  
MADE BY DECONWAY  
  
KIND OF UNIT: UNIT  
NOM OF EQUIPMENT: GENERATOR TRANSFORMER

**OUR SPECIALIZED SERVICES TO THE  
POWER INDUSTRY**



The demand for energy is increasing continuously. Whether wind turbines, biomass, waste incineration plants, gas-fired, nuclear or coal-fired power stations are used, the businesses in this sector are renovating or expanding. The expertise of Royal Wagenborg could be particularly opportune in these processes. Wagenborg is your all-round partner in the fields of project logistics, transport, lifting, assembly, engineering and project management. A unique range of logistic services dedicated to the power industry.



# DEDICATED TO THE POWER INDUSTRY

Royal Wagenborg offers full scope logistics to the power industry, from the transport of heavy components by road or sea, installation and assembly works, transshipment and storage to a thorough projectmanagement. Our experienced crews can handle any logistic challenge. Discover how our services can be a solution for your logistic question.

## FACTORY TO FOUNDATION



## HEAVY LIFTING



## HEAVY TRANSPORT



## TRANSHIPMENT & STORAGE



## ASSEMBLY & INSTALLATION

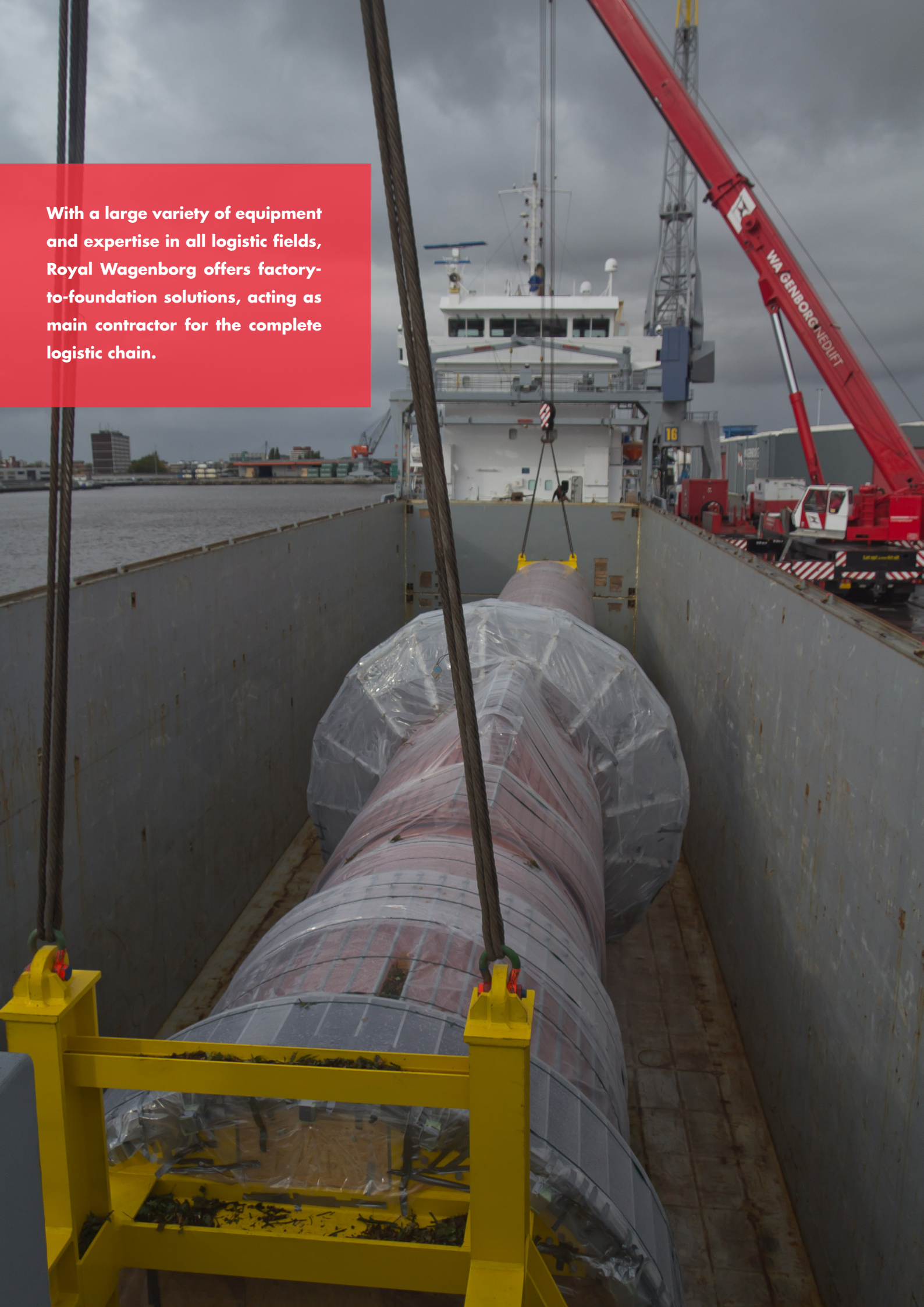


## HSEQ





With a large variety of equipment and expertise in all logistic fields, Royal Wagenborg offers factory-to-foundation solutions, acting as main contractor for the complete logistic chain.





# FACTORY TO FOUNDATION

Construction of power plants is a logistic challenge. Every plant requires heavy and oversized components, such as generators, transformers, boilers and turbines, which are manufactured at suppliers all over the world. Transporting these components to the construction area requires specific expertise, as this often involves a variety of transport methods. Royal Wagenborg is able to combine these logistic services with our own equipment through our 'factory to foundation' concept. Wagenborg acts as the main contractor for the total logistic chain and is charged with responsibility for the whole trajectory, which optimizes logistic efficiency. This ensures that all heavy components will arrive safely and according schedule at the plant to be installed on foundation.

- **180 multipurpose vessels**
- **1.700 - 23.000 DWT**
- **ice classed**
- **geared - non geared**
- **11 pontoons (inland and seagoing)**
- **660 - 20.000 DWT**
- **7 tugs up to 62 ton BP**
- **Crawler cranes up to 750 ton**
- **Mobile cranes up to 700 ton**
- **Modular trailers**
- **Heavy duty trailers, lowloaders and semi lowloaders**



1



2



3



4



5




6

## REFERENCES

1. **Bio Golden Raand, NL**  
Transport and installation of generator (85t), turbine (184t) and condenser (55t) from fabrication yards up to foundation.
2. **Transformer Pitea, SF**  
Transport, transshipment, shipping and installation of transformer (295t)
3. **Nuon Twingo Diemen, NL**  
Transport and installation of power train from fabrication yards up to and installed onsite.
4. **NPP Olkiuoto, SF**  
Transport and installation of two vent stacks (140t and 60t) at NPP Olkiuoto at 40m height.
5. **Tpower Tessendero, B**  
Transport and installation of power train from fabrication yards up to foundation.
6. **Claus C power plant, NL**  
Transport and installation of boiler stack parts from fabrication yard in Belgium to site Claus C Maasbracht.





Royal Wagenborg operates a variety of heavy cranes up to 750 tons capacity. All of our cranes are equipped with a luffing fly jib and most of them with superlift attachment, which makes a large range of configurations possible. Of course, all our cranes are operated by skilled and experienced crane drivers. We herewith offer you a full package of heavy lift services with modern equipment and a skilled project team.



# HEAVY LIFTING

In construction and plant maintenance projects, heavy and oversized components need to be lifted. Royal Wagenborg is able to carry out such lifting projects safely and well organized. From a simple hoisting job with 1 hydraulic crane to a complicated project with a range of equipment - Wagenborg guarantees the flexibility and choice in vertical transport you are looking for. The entire Wagenborg crane fleet is regularly scheduled to strict maintenance for optimal reliability and safety. But our cranes are useless without expert operators, project managers and engineers. We understand how to prepare and carry out lifting jobs in such a way that it helps our customers get their plants up and running as early as possible or reducing their downtimes.

- **Crane fleet of 150 cranes**
- **Mobile cranes up to 700 tons lifting capacity**
- **Crawler cranes up to 750 tons lifting capacity**
- **Flexible configuration options**
- **Engineering**



## REFERENCES

- 1. Kraftwerk Eemshaven, NL**  
Provision of LR1400 and LR1750 crawler cranes for assembly filter parts, steel construction, ducts and equipment. Absorber parts with 300t and 500t cranes.
- 2. Kraftwerk Emlichheim, D**  
Lifting of boiler modules at bioplant with 350 tons crawler crane CC2200.
- 3. Poweo plant Toul, F**  
Lifting of boiler modules, stacks and aux. equipment with CC2800 as main crane, CC2200 as tailing crane.
- 4. Kraftwerk Lingen, D**  
Rental of LR1400 and LR1750 for the assembly works of the boiler at new powerplant for a period of 12 months.
- 5. Maasbracht Claus C, NL**  
Lifting boiler steel construction, stacks and auxiliaries with LR1400 and CC2800.
- 6. Essent Moerdijk, NL**  
Lifting of boiler modules at new power plant. LR170 as main crane; CC2200 used as tailing crane.





The power and capacity of our modular trailers enables our crew of dedicated engineers and project managers to develop the best transport solution for you. They always calculate and determine the safest and most efficient route of the components or modules. This often includes performing detailed route surveys to identify any possible bottlenecks along the way and countering these with safe and effective solutions. And then our experienced operators can start...



# HEAVY TRANSPORT

In the power industry plants are being constructed at large scales. This means larger and heavier components, prefabricated modules and structural elements are manufactured, transported and installed. Royal Wagenborg is able to take care of transporting these heavy units at a lump sum rate. Our project department takes care of project preparation, engineering, project management and realization. Our heavy transport services vary from a simple flatbed transport up to and including a complicated multimodal transport project with our modular trailers. With our diverse fleet of transport units we provide our clients all over Europe with tailor-made transport solutions.

## Conventional modular trailers

- **Propelled by prime movers**
- **Variable driving heights**
- **Steering angles up to 60°**
- **Maximum axle loads of 36 Tons**
- **For speeds up to 80 km/h**

## Self-Propelled Modular Trailer (SPMT)

- **Variable driving height**
- **360° Steering angles**
- **Maximum axle loads of 40 Tons**
- **For speeds up to 5 km/h**
- **Remotely controlled**



## REFERENCES

- 1. TenneT substation Ens, NL**  
Transport of 3 transformers (326t each) and 6 coolers (20t each) from fabrication shop in Nijmegen up to foundation.
- 2. BFG Gent, B**  
Transport of a turbine, condensers and other ODC and general cargo from various shops in Europe to new building site.
- 3. Kraftwerk Wilhelmshafen, D**  
Transport and installation of transformer (298t) and columns from Nijmegen upon foundation.
- 4. Stenkullen, SE**  
Transport and installation of a transformer (260t) from Linz upon foundation in Stenkullen.
- 5. Oskarshamm NPP, SE**  
Transport of 6 innercasings (3 x 36t and 3 x 39t) from fabrication site Mülheim to NPP.
- 6. Kraftwerk Eemshaven, NL**  
Transport of power train equipment and condensers from storage to construction site RWE. Generator (462t).



Besides our own terminals in the ports of Delfzijl and Eemshaven, Wagenborg has an extensive network of partners for transshipment activities in other European ports. This way Wagenborg can assure the most optimal logistic chain for your cargo.





# TRANSHIPMENT & STORAGE

Our logistic hubs in Delfzijl and Eemshaven offer opportunities to many industries, among the energy sector. Our terminals, with a total storage area of 390,000m<sup>2</sup>, are perfectly suited to loading, unloading and transshipment of many types of cargo. They are excellent for the transshipment and storage of heavy components. In addition, Wagenborg provides heavy duty trailers, SPMT's and heavy mobile and crawler cranes to ensure a safe and efficient on-site transport. Besides our logistic services Wagenborg is AEO certified, which ensures all customs formalities to be executed in a professional manner.

- **Terminals in Delfzijl and Eemshaven**
- **Open and covered storage**
- **Total storage of 390.000m<sup>2</sup>**
- **1,800m of quay**
- **RORO facilities**
- **Deep draught**
- **AEO-certified**
- **ISO 9001 certified**
- **ISO 14001 certified**
- **GMP+B3 certified**
- **VCA trained personnel**



## REFERENCES

- 1. Lausward Düsseldorf, D**  
Transshipment and local transport of a gasturbine (478t) and the generator (457t) using 2 x LR1750 crawler cranes.
- 2. Ashdod, IS**  
Transport and transshipment of a disassembled generator (350t) from Rotterdam to Ashdod, Israël.
- 3. Wilhelmshafen, D**  
Transport and transshipment of transformer (495t) at Euroterminal Wilhelmshafen.
- 4. Transformer Djele, DK**  
Transport, transshipment, shipping and installation of transformer (281t)
- 5. Esso Antwerp power plant, B**  
Handling power train equipment and condensers at port of Rotterdam and reloading into coaster.
- 6. Nuuk Greenland, DK**  
Transport, transshipment and installation of 5 transformers (50t each) from Aalborg upon foundation in Nuuk, Greenland.





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# ASSEMBLY & INSTALLATION

In addition to the heavy transport and lifting work, Royal Wagenborg has several pieces of equipment for handling, offloading and positioning of heavy machinery, such as transformers, turbines and generators. Especially with loads weighing several hundreds of tonnes, it is essential to have an absolute guarantee concerning weight and center of gravity. Wagenborg's electronic weighing systems is exactly designed for this purpose. Our lifting gantry systems, jacking systems and skidding systems are ideally suited for maneuvering heavy components inside plants and/or in narrow places.

- **Jacking system**
- **Weighing system**
- **Skidding system**
- **500 tons hydraulic lifting gantry**



## REFERENCES

- 1. Power plant Köln-Niehl, D**  
Transshipment, transport and installation with skidding and gantry system of generator (504t) and gasturbine (536t).
- 2. Substation Dörpen, D**  
Transport 2 Transformers (385t) and 8 Coolers (15t) from Bad Honnef upon installation at substation in Dörpen.
- 3. TenneT Ens, NL**  
Transport and installation of 3 transformers (326t) and 6 coolers (20t) from fabrication upto foundation.
- 4. Electrabel Rotterdam, NL**  
Installation of condensor parts inside power plant building at KW Electrabel Rotterdam.
- 5. Kraftwerk Stade, D**  
Transport and installation of steamturbine (45t), generator (40t) and auxiliaries.
- 6. Kraftwerk Lünen, D**  
Transport and installation of condensor, turbine parts, transformer (436t) and generator (462t) from manufacturers to foundation.



Wagenborg is all about people. After all, our employees come up with and realize the solutions for your logistic challenge. This often takes place in changing and challenging circumstances. That's why we take care to provide for good and safe work conditions, only send our employees out with certified equipment and deal in a responsible manner with work related risks during all our activities. We pursue an active policy to prevent accidents and absence by stimulating awareness about safety and safe behavior. We pay a lot of attention to the education and training of our employees. Our people perform their duties in an adequate and safe manner.

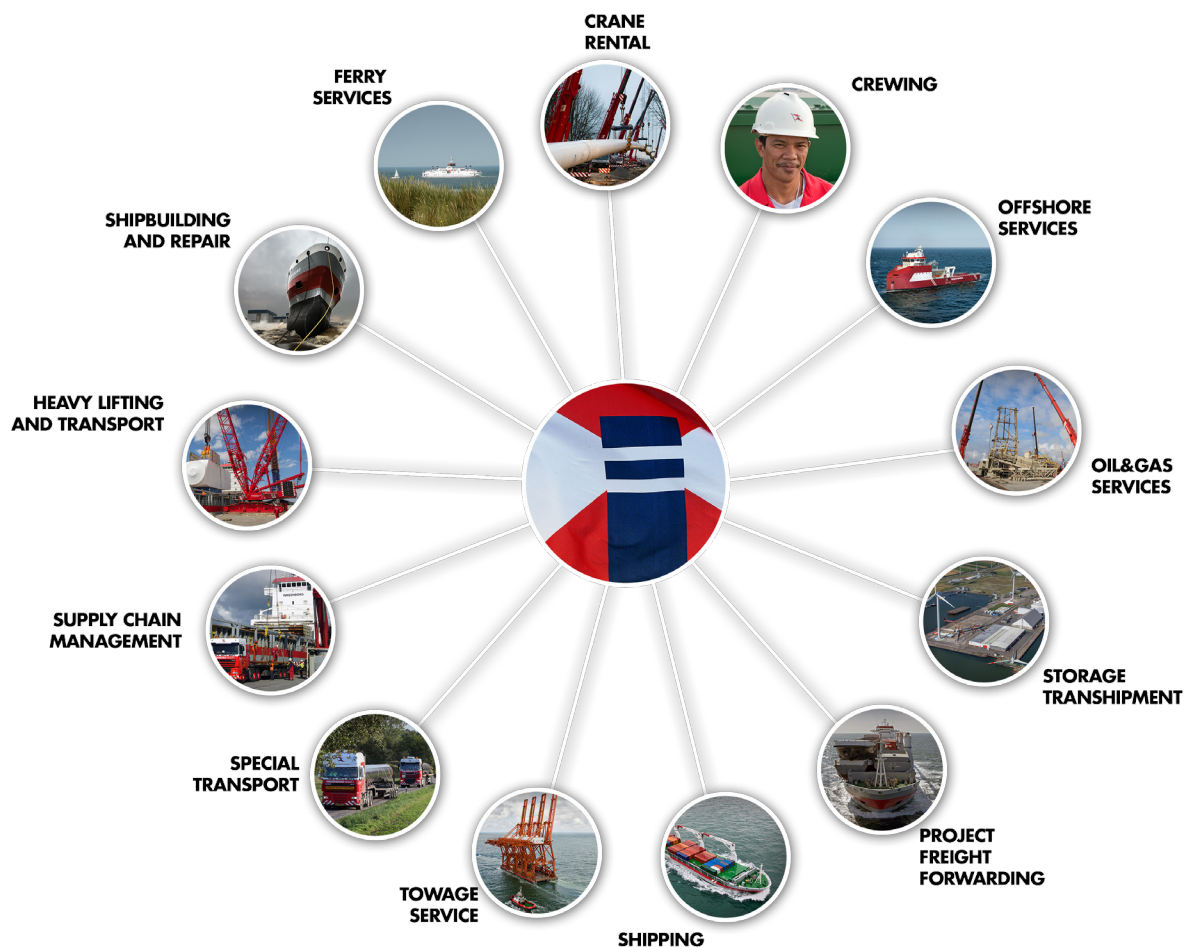




# ROYAL WAGENBORG & HSEQ

As one of the oldest and largest logistics companies in the Netherlands, Royal Wagenborg has always been a pioneer and today, the company continues to be at the forefront of developments. Wagenborg undoubtedly forges its own path, offering a unique range of logistic services dedicated to the power industry. Wagenborg was established in 1898 and employs 3,500 people. As a family owned and managed company we consider family values and social responsibility to our employees, customers, environment and other stakeholders important and do not compromise on this subject.

- ISO 9001 certified
- ISO 14001 certified
- VCA-P certified
- AEO certified
- STC certified
- OHSAS 18001 certified







**sign of solutions**

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