

# PIONEERING SPIRIT PROJECT



## • LOCATION

Vlissingen - The Netherlands

## • CLIENT

Iemants - Smulders

## • PROJECT SUMMARY

“Pioneering Spirit” is the world’s largest ship, designed for the single-lift installation of large oil-and-gas platforms. The Stinger will guide pipes to the bottom of the sea, thus assuring an optimal curve during the installation of the pipelines.

Sarens executed the load-out of the Pioneering Spirit Stinger onto the Sarens barges (moored in tandem) using an SPMT-roll-on operation. The frame weighs 4.200T and is 150m long and 65m wide.

Besides the Stinger, Sarens also transported and installed all 16 TLS beams on board the vessel. The beams, weighing 1.700T each, were handled with SPMTs and barges. Various cranes up to 650T on board the Pioneering Spirit, were used to install the drive works. These TLS beams are used for lifting entire topsides.



## PIONEERING SPIRIT PROJECT SUCCESS

### • OBJECTIVE

This project was a tandem load-out, meaning a simultaneous load-out onto two barges. Both barges (interconnected by strand jacks) needed to be ballasted simultaneously and equally to avoid stressing the structure excessively. It was also a tidal load-out, meaning there was only a limited amount of time to drive onto the barge.

### • SOLUTIONS

The first step of the operation was the jacking up of the stinger using Sarens' CS5000 jacking system, which allowed the client to finalize the construction. The completed Stinger was subsequently transferred from the construction location in Vlissingen, the Netherlands, to Allseas' purpose-built Stinger barge, "Bumblebee". This was the first step in the load-out using Sarens' barges "Paula" and "Jan", which were positioned in a catamaran configuration, using a total of 168 axle lines of Kamag 24 SPMTs. To ensure a safe and controlled load out, ballasting equipment with a total capacity of 30.000T/h was installed on board the barges. After the load-out, the barges were rotated 90 degrees, allowing "Bumblebee" to be accurately positioned in between "Paula" and "Jan" barges by means of a winch-controlled operation. Once "Bumblebee" was in final position, the transfer of weight from the Sarens barges to the Stinger barge was performed using the latter's ballast system, a procedure supported by detailed design and engineering.

### • RESULTS

Safety standard contingencies were taken into account concerning the ballasting and mooring calculations.

