

PROJECT SHEET

UMBILICAL REPLACEMENT AND ACCUMULATOR RACK CHANGE-OUT

BOSKALIS

Royal Boskalis Westminster is a leading global marine contractor and services provider. With safety as our core value, we offer a wide variety of specialist activities to the oil & gas and renewables sectors. These activities include marine installation and decommissioning, seabed intervention, marine transport and services, subsea services and marine survey. In addition, Boskalis is a global dredging contractor, provides towage and terminal services across the globe and delivers marine salvage solutions.

By understanding what drives our clients we are able to provide the solutions that enable them to meet their specific business goals. For this reason we are constantly looking for new ways to broaden and optimize our offering and are committed to expanding our proposition, supported by our financial strength.

With our committed professionals in engineering, project management and operations, 800 specialized vessels and an unprecedented breadth of activities in 90 countries across six continents we help our clients in the offshore industry push boundaries and create new horizons.

FEATURES

Client	Wintershall Noordzee B.V.
Location	Block J6-A, The Netherlands
Period	Q2, 2019
Contractor	Boskalis



J6-A UMBILICAL REPLACEMENT PROJECT

The Spirit Energy operated J6-A production platform (formerly operated by Wintershall Noordzee B.V.) is located in block J6 of the Dutch Continental Shelf. Wintershall Noordzee remains responsible for the 24" export pipeline and a Subsea Isolation Valve (SSIV) within this pipeline, located approximately 250 m from the platform in a Subsea Protection Structure.

Wintershall required the SSIV control umbilical between the platform and the protection structure to be replaced as well as the accumulator rack within the protection structure, which activates the SSIV in case of emergency.

The DSV 'EDT Protea' was mobilised for this project.



- A The J6-A platform
- B Location map

SCOPE OF WORK

UMBILICAL REPLACEMENT

This part of the operation required a Boskalis topside team to work closely with the DSV 'EDT Protea'. The old umbilical was disconnected topside, cut subsea and pulled out of the 12" J-tube. The new 260 m umbilical was subsequently lowered to the seabed on a subsea carousel, connected to the pull-in wire and pulled up to the platform through the 12" J-tube by a topside installed winch, whilst being unrolled from the carousel. Once secured topside by the hang-off flange, the vessel stepped towards the subsea protection structure in small increments on DP, whilst further unrolling the umbilical from the carousel under guidance of an ROV. Once fully laid on the seabed, the umbilical was covered by concrete protection mattresses.

The free end was then placed into the protection structure for hook-up after the accumulator rack change-out.

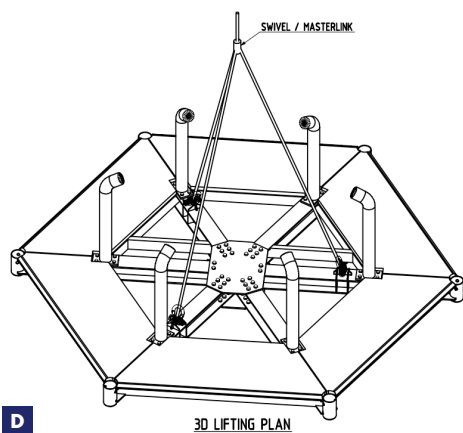
ACCUMULATOR RACK CHANGE-OUT

Inside the subsea protection structure there is an accumulator rack, which consists of 5 hydrogen filled pressurised cylinders. This pressurised rack can be utilised to operate the SSIV in case of emergency. In order to allow a change-out, the protection structure roof panels were removed in order to maneuver the old rack out. This required careful subsea lifting and cross hauling inside the structure due to the live 24" pipeline and limited space. Once cleared from the structure and lifted to deck, the new rack was prepared for deployment, then lowered to the seabed and placed inside and secured to the structure.

As a final action the new control umbilical was connected to the new accumulator rack and SSIV. The roof panels were put back on the structure and a ROV as-left survey conducted.

CONCLUSION

The project was executed successfully and ahead of schedule; the seamless interface between topside team and DSV (diving) team contributed to an efficient operation. All stakeholders (Spirit Energy, Wintershall and Boskalis) worked well together to deliver this project safely and timely.



- C** Carousel loaded with new umbilical
- D** Carousel design drawing
- E** Accumulator rack