SEA **PROJECT SHEET**

N-Sea is an integrated subsea service provider. We offer a wide range of Survey and IMR services to civil contracting communities and the energy sector, focusing on the international oil and gas and renewable industry.

We meet our clients' needs. How? By providing effective and costefficient solutions for subsea assets and infrastructure, considering a safe environment.

N-Sea delivers subsea: from installation to decommissioning, from inspection through to maintenance management, we help assess the state of subsea assets and provide the necessary service throughout their entire lifecycle.

WE LISTEN

THEN DELIVER

"EXECUTING OUR STRATEGY IN AN IRREVERSIBLE WAY"

We have the ambition to be the go-to total subsea solutions provider. We want to create a sustainable business, be less vulnerable and increase our profitability.

To realize this ambition, we have a clear vision and strategy relating our solutions, markets, geographies, and organization. To achieve these goals, we develop our organisation to the level of best in class being fully synchronised with our ambition and strategy by contributing to the following key success factors constantly:

- Qualified and engaged people
- Long term client relationships
- Strategic partnerships
- Innovative solutions
- Safety and quality 100%
- Visible presence

CLAMP INSTALLATION BY DIVERS CASE STUDY

SCOPE OF WORK

The consortium of N-Sea and SeaRenergy was contracted by the client for detailing, designing, fabricating, and installing six 30Te clamps for the jacket structure of an offshore platform in The German sector of the North Sea. The project consisted of: (1) adapting & detailing client concept design, (2) fabrication of the designed clamps, (3) offshore ovality measurements of the substructure, and (4) offshore execution of the substructure modification (clamps installation). As part of the consortium, N-Sea was in the lead of offshore execution & installation and SeaRenergy was in the lead of engineering and fabrication. The offshore support vessel Olympic Challenger was mobilised with a survey system, WROV, and Dive spread for conducting the offshore execution.

CHALLENGES

- Adapting and finalizing initial clamp design from Client.
- Germany diving rules regulations and restrictions.
- Workability caused by adverse weather was a risk for the duration and type of the project.
- Multiple interfaces in the project (consortium and subcontracting)
- Late change in vessel strategy.

OUTCOME

- Effective communication and working relationship on board the vessel.
- Project execution went well.
- Procedures produced were well-thought & through.
- Crucial equipment was well prepared.
- Clamps were successfully designed and installed.
- Diving Philosophy proofed to be safe and productive.
- Demobilisation was completed on time.

SOLUTIONS

- The consortium provided capability to redesign the clamp due to the original design being too small for the jacket structure.
- Project procedures were also designed and produced, enabling to install the larger clamps (final Design) by air bags.
- Project was executed in a consortium with SeaRenergy, hence enabling the consortium to work in a close communication with Client since the early phase of the engineering and designing of the clamps.
- N-Sea's inhouse diving expertise was used to incorporate the Germany Diving Table and safety levels of The Dutch diving Table.
- Olympic Challenger was selected as the offshore support vessel, which resulted in a reliable and capable platform for the project.
- Multiple project engineers were mobilised onboard to provide the offshore engineering support and interface & change management support, which led into positive performance of the project.

FEATURES

| Client | Dutch-German offshore grid operator |
|----------|--|
| Location | The German sector of the North Sea |
| Period | 2018 – 2019 Net offshore operation: 58 days |
| Assets | OSV Olympic Challenger with a survey system, WROV, and Dive spread |
| Extra | Project delivered safely with no lost time incidents. |

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SEA **PROJECT SHEET**

CLAMP INSTALLATION BY DIVERS CASE STUDY

SHEQ

Aligned SHEQ goals are fundamental to the way in which N-Sea operates. We encourage and train our people across our worksites, providing them with the support and assistance required to operate safely.

"WE GENUINELY CARE. OUR TARGET IS NO HARM TO PERSONNEL AND NO IMPACT TO THE ENVIRONMENT"

Our safety initiatives are a key driver to ensuring we achieve the highest safety standards:

- by applying visible leadership, workforce engagement and effective intervention
- with a minimum impact on production
- considering environmental factors
- without compromising quality

N-Sea's objective is to provide an environment where all those involved in/or are affected by the activities we perform, are safe and empowered to stop the job is they feel it is unsafe.

We are driven to perform in accordance with the industry best practices and meet the requirements of ISO 9001 (Quality Management), ISO 14001 (Environmental Management) and ISO 45001 (Occupational Health & Safety).

We strengthen the above through our distinctive four-pillar approach:

| SAFE | Safety excellence is at the heart of |
|----------|--|
| | everything we do |
| TOGETHER | We work and operate as one group, |
| | teamwork is our strength |
| SOUND | We listen then deliver |
| SWIET | We understand the priorities of our Clic |

SWIFT We understand the priorities of our Clients







A Olympic Challenger close to platform B Ongoing operations in ROV control room C Over boarding of subsea clamp