



Opening new operational windows

A new company with a pioneering concept - the Zbridge. PES is always on the look out for new and innovative ideas and we are sure this will not disappoint you. Read on to find out more...

September 2017 marked the start of the Zbridge BV, supplier of Zbridge walk to work system (W2W). The company is located in IJmuiden in The Netherlands. Zbridge was set up by its parent company Ztechnologies.

One of the people behind the Zbridge development is pioneer Reinout Prins. The Zbridge is the second W2W system that he has developed. As the inventor of

the Offshore Access System (OAS), Prins was responsible for the first ever W2W concept. He continuously looked into opportunities of improving safe access to offshore structures and increasing the operating windows. This led him to start the Zbridge W2W system development.

This was initiated within Ztechnologies, a company specialised in developing

innovative ideas, creative design and resulting in safe solutions. They developed the Zbridge with a specialist hydraulic and control systems company.

During the summer of 2016 it was tested at the L8P4 offshore production platform at Wintershall Noordzee. After successfully concluding the extensive sea trials the Zbridge was deployed on its first ever

The power consumption is the lowest of all systems available on the market.

commercial contract in December 2016.

The system was installed on the Normand Reach, operated by the Norwegian company Reach Subsea. The combination supported a construction project working at two locations in the Dutch part of the North Sea. During this first project the system proved its capabilities by working throughout the most severe winter conditions.

Establishing Zbridge BV as a separate company marks the launch of the Zbridge W2W concept on the market. Bastiaan Spruit was appointed as General Manager of Zbridge BV. He will be responsible for further developing, marketing and managing the operation and providing 24/7 technical support to clients.

The Zbridge is available as a fully operational rental package or can be procured, with a service level agreement, for operational and technical support to clients.

The basis of this W2W system is the roll and pitch motion compensation, which eliminates all rotative movement from the vessel. This patented system consists of a gimbal and hydraulic cylinders, which connect the mast with the deck. The cylinders keep the mast

100% vertical at all times. Thus eliminating the need for movement compensation at the top of the mast.

A combined full roll and pitch compensation is crucial for optimal workability. It also allows the system to work at an angle. This gives the captain maximum freedom to position the vessel in an optimum heading.

The heave of the vessel is compensated by luffing the walkway, telescoping and slewing the bridge. By removing all these movements the Zbridge W2W system is fully motion compensated.

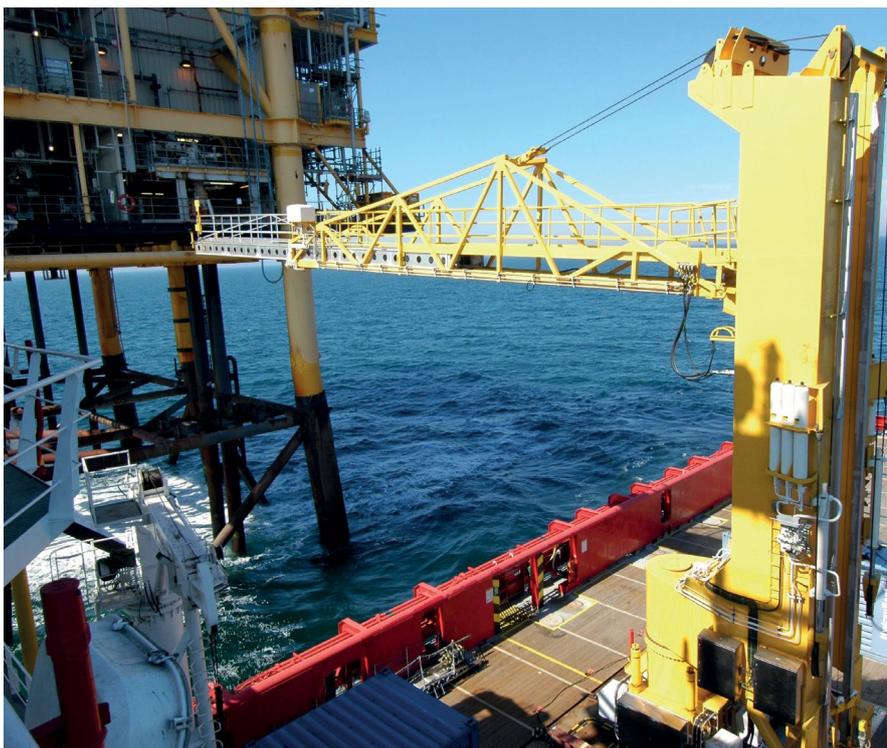
By pushing the tip of the gangway against the offshore structure its position is defined, stable and secure. This positive engagement creates a reference point to control the interface 100% with the offshore structure

The power consumption is the lowest of all systems available on the market. It allows the system to remain connected during all weather conditions for continuous access between the vessel and the offshore structure. This makes the system suitable to act as an emergency escape route.

A distinct advantage of the gangway is the transfer of cargo. As well as carrying personnel the Zbridge is designed to take cargo, weighing up to 500 Kg, on the bridge. Personnel and cargo arrive directly on the landing elevation via a lift. Removing the need for stair climbing improves comfort and safety. The lift also gives continuous access and transfer to people and cargo, without disconnecting the system.

The Zbridge is operated from a control room on the main deck of the vessel. This means the operator has a line of sight to the landing area and a clear view of the compensation system. The operator, aided by the camera system, mounted in the landing head, has perfect control over the system, during docking to the offshore structure. Once docked it automatically remains connected to the offshore structure.

The Zbridge is currently operational in UK waters on the Construction Support Vessel 'Sun Enabler' of Østensjø Rederi. The vessel provides support at the DONG Energy Race Bank Offshore wind farm. The feedback from the parties working with the Zbridge is very positive. The system has been operating in waves of 3.5m and high swells, with wind force 8 bft.



ZBridge at L8P4

Based on the positive reactions from the market and to increase future business Zbridge has initiated its newbuild program.



The Zbridge brings the following distinguish features to the market:

- Patented roll & pitch compensation system, eliminating rotative mast movement
- Unique balanced mast resulting in a low power requirement during active compensation
- Direct access to +23 meter elevation of the offshore structure
- Continuous access with an elevator when connected to the offshore structure
- Elevator suitable for 8 persons
- Elevator suitable for 1000Kg cargo
- Suitable as emergency escape
- The Zbridge W2W system is available as rental package or can be procured

Race bank operation

Based on the positive reactions from the market and in order to increase future business Zbridge has initiated its newbuild program. The Front End Engineering Design (FEED) has been finalised and the detailed design for the Zbridge new build program has begun.

Due to the satisfactory operating results, the motion compensation system will remain unchanged. The most important changes are related to the height of the mast and the capacity of the elevator.

The new systems will have an adjustable landing height allowing clients to operate the system from several elevations. The capacity of the elevator will be increased to handle 1000 Kg of cargo in the elevator and on the bridge. Also the capacity for personnel will be increased from 4 to 8 people.

These changes are proposed as an improvement on the overall operational flexibility for Zbridge's clients, in the continued effort in 'opening new operational windows'.

www.Zbridge.nl



Race bank operation