



Shifting winds: the future of full service offshore access

As the global wind sector continues to grow, so does the demand for efficient and flexible offshore access solutions. Fifteen years ago, Ampelmann was founded on a unique premise: to provide offshore access as easy as crossing the street. Its high-tech motion compensated systems have helped to define new industry standards for safety and efficiency in an age when the global energy infrastructure is rapidly changing, diversifying, and adapting to new demands for offshore access. Over the years, the company has developed new systems, tools, and services to facilitate this change and ease the acceleration towards the energy transition.



them ideally suited to accelerate and sustain the growth of wind energy by providing consistent access to offshore wind farms throughout the year. Through the electrification of its fleet and the diversification of its portfolio it aims to assist with the imminent growth of offshore wind.

The coming years will see significant energy savings and improved environmental footprints, as the company has begun to electrify its fleet. The electrification of the A-type, Ampelmann's flagship system that sees widespread use in the global offshore energy sector, is already underway. By using regenerative electric technology, the hydraulic pressure on the hexapod can be fed back into the system.

The result is a system with a significantly lower carbon footprint that consumes 90% less energy. The first electric A-type has already been commissioned in the field and a similar, lighter and fully integrated version of the system, the S-type, currently sees use on OceanXpress' Aqua Helix, a lightweight fast crew change vessel that can reach speeds of up to 40 knots, to provide offshore access in the North Sea on an on-demand basis.

Further savings can be made through the development of strong product-service alignments. Alongside the continuous adaptation of its systems to new market conditions, the company has also developed a robust service package to reduce downtimes even further and increase the efficiency of offshore operations. By providing all its buying and renting customers with workability forecasts, 24/7 operational support, redundancy packages, and monitoring all carbon emissions throughout the entire supply chain, the company can stay extremely focussed on the technical changes that need to be made and to further improve the ecological footprint of its systems.

Additionally, new systems have been designed that can effectively service wind turbines throughout their entire lifecycle. This not only increases the efficiency of offshore campaigns, but also leads to operational flexibility as they can assist with a wide array of different work scopes, from, short term, construction, hook-ups and commissioning operations, to, long term, repair and maintenance work.

One such system is the W-type, the most recent addition to Ampelmann's portfolio. This electric system can convert any vessel into an SOV/CSOV and is easy to build, mobilise and repair due to its modular design. The gangway doubles up as a crane and can safely transfer both personnel and cargo up to 2000kg. As it is height-adjustable, it can comfortably reach the diverse heights of older and modern wind turbines during construction, repair and maintenance operations on wind farms.

The system can service multiple turbines during a single run and because it remains

The global offshore wind energy sector is growing dramatically. Governments throughout the world are raising their renewable energy targets to new ambitious heights. The global wind energy council (GWEC) recently estimated that the next eight years could see the addition of 260 GW of offshore wind installations bringing the total global offshore wind capacity to 316GW by 2030.

Such tremendous growth is not without its challenges. As offshore wind turbines come in different sizes and shapes and require many intricate operations to construct and maintain, the number of distinct scopes that need specific access solutions is growing considerably.

Vessel shortages, inefficiencies due to waiting on weather, particularly in the case of deep-water floating wind turbines, as well as an increasing diversification of offshore operations require clever solutions that can help to accelerate and sustain this projected growth in a sustainable way.

As a company that has been deeply invested in the global wind sector since its foundation, Ampelmann is actively seeking out ways to provide solutions to these challenges. Motion compensated systems provide safe, consistent, and reliable access throughout the year.

This increase in year-round workability leads to greatly enhanced efficiency and makes



stable in sea states of up to 3.5m Hs it can greatly extend the duration of individual campaigns.

The E5000 is a multifunctional gangway based on proven E-type technology and is similarly versatile. Fully motion compensated in all six degrees of freedom, it is the only system in its class that can transfer both passengers and heavy cargo loads up to 4.6 tonnes.

Well within the range of lifting generators and winches, the system is ideally suited to assist with the construction and critical maintenance of wind turbines. Capable of operating in sea states as high as 4.5m Hs,

the system can extend weather windows, shortens the duration of campaigns, and provides reliable access to offshore wind turbines despite seasonal constraints. As it can switch between crane and cargo mode in less than a minute it eliminates the need to maintain a separate crane on a vessel and broadens the scope of work significantly.

In the last six months Ampelmann has notably increased its stake in the global wind sector. Five W-types have already been sold so far and an E5000 was recently commissioned to support a cabling operation in France. Alongside its growing involvement

in Europe, it is also assisting with the construction and cabling of the first offshore wind turbines in the USA and work has begun on five windfarms in Taiwan.

The coming years will see increasing demands placed on the offshore service sector. More than ever, efficiency and flexibility are key to sustain the acceleration of the global offshore wind sector. Through continuous innovation, upgrading its portfolio and reducing its reliance on hydrocarbons, Ampelmann is staying ahead of the curve and designing the future of offshore access.

www.ampelmann.de



About the company

Ampelmann designs and delivers innovative, safe, reliable and efficient transfer solutions to the offshore energy industries globally. With a track record of more than seven million safe people transfers, over 18.5 million kg cargo transfers and 400 projects worldwide, Ampelmann operates in Europe, Africa, Asia Pacific, the Americas and the Middle East.

Ampelmann currently maintains a fleet of 65 operational systems used for transferring crews and cargo to offshore structures. Its solutions are tailored to the needs of different market segments, sea states, cargo and crew loads, and are used by the key players in the global industry.