PES: Welcome to PES. Would you like to introduce the company and explain a little about the services you offer?

Eveline Huizink: Founded in 2007 as a spin-off of the Delft University of Technology, Ampelmann was established with the vision to make offshore access as easy as crossing the street. As such, our mission is to set new standards in safety by operating motion compensation offshore access systems and services all over the world. At the core of the business is the unique technology of the Ampelmann system, a motion compensation platform that allows easy, fast and safe access from moving vessels to offshore structures even during high wave conditions.

Since it was incorporated seven years ago, Ampelmann has found clients across the world and consecutively doubled its fleet year on year. We presently operate 40 systems worldwide transferring offshore crew from various types of vessels to offshore oil and gas platforms, wind turbines, FPSOs and all other floating and fixed structures at sea.

PES: What are the benefits of an Ampelmann system for the wind sector?

EH: The systems are essentially flexible gangways of different size that transport workers and cargo to wind turbines and other offshore structures. Principally used to support offshore repair, construction and maintenance projects, the Ampelmann systems are safe and secure in all types of weather. The fact that our products can be used in all weathers is hugely important for wind companies as it means their turbines can be accessed at all times, whatever the external conditions.

This has clear economic benefits too, as renting an Ampelmann is more cost effective than hiring helicopters, larger vessels or inflexible jack ups. Because it can work 24 hours a day, the ship can simply be parked next to the structure and left so that a lot more man hours of actual work are achieved. The platform basically turns the ship into a very versatile working hotel directly next to where the crew are working which leads to an increase of effective man hours.

PES: How much importance do you place on R&D?

EH: Ampelmann is a high-tech company with a strong link to Delft Technical University, so innovation is in our DNA. To stay ahead of the game, Ampelmann continuously improves its well-known A&E-type systems. But with our developments, we also open up new markets, i.e. a Motion Compensated Crane CTS-system and the L-type, a smaller version of the Ampelmann A-type. With multiple prototypes a year, development goes at a tremendous pace. With that many students complete their final thesis at Ampelmann, to research and apply new technologies, and to learn about the company. As we’re always looking for engineering talent!
PES: Similarly, have you had to adapt your technology for the particular needs of the wind industry?

EH: The Ampelmann was introduced in the offshore wind industry for the safe transfer of personnel, but it has also proven to be suitable for assisting in fuelling and grouting operations by supporting hoses, and also in the transfer of small cargo. To facilitate the latter, we created the KIB, a basket that can be mounted on the tip of the gangway for loads up to 100 kilos. We picked up from several clients that they had found there was also a need for larger cargo transfers which at that time were being handled by auxiliary cranes that needed to be fitted on a vessel or being transported by support vessels.

That's how we started to develop the Cargo Transfer System (CTS). The CTS uses the same hexapod configuration with 3m cylinders but the gangway is now equipped with a 32 m crane boom capable of lifting up loads up to a maximum of 8.5 t up to 30m above sea level. When the unit is required to work in a crane configuration, the folding crane boom, hinged at the tip of the Ampelmann gangway is released from the side of the gangway and is swung around and locked. The system is best suited for fitting on vessels that fall in the category between small support vessels and the heavy installation vessels. It is ideal for use during both installation phase and once a wind farm is in operation for planned maintenance. With a CTS on board a vessel there is no need for auxiliary cranes or use of helicopters or support vessels to transfer the cargo load or workers onto the landing platform of a turbine. There are also fewer personnel needed to do the job.

PES: Does each gangway have to be tailored to the individual job, or is it more of a ‘plug and play’ offering?

EH: Ampelmann motion compensation gangway systems can be installed on any vessel with sufficient deck space in around eight hours. The systems themselves are ‘plug and play’ and operate stand-alone with their own power packs. Operationally, no modifications to the wind turbines are required to enable safe landing with the heave compensated gangway making it a highly cost effective solution.

Besides, Innovation is key to our ongoing success. When a product enters the market, that is not the end of it. Once it is out there, clients give us feedback such as wanting a higher reach or to carry more cargo. We are also particularly interested in developing client-specific applications for the system. We are working closely with our clients and listen to their needs and feedback in order to improve our products and create new concept.

PES: How competitive is your corner of the wind market? Would it be fair to say that it’s an area that’s set to grow still further?

EH: Our corner of the wind market is very competitive. Multiple ways of accessing turbines can be used, from helicopter to CTV. However, we do believe that we provide a unique system especially when it comes to safety, efficiency and reliability. We have proven to support our customers meeting their deadlines by increasing the number of working hours offshore.

So yes, there is competition, but we do believe in our product. We do anticipate for growth. With OWFs moving further offshore we see a growing market for walk to work solutions. And with our clients discovering they can work during the winter months, we see great added value with our systems as well.

PES: Can you explain a little about your ‘Offshore access as easy as crossing the street’ motto?

EH: In 2002, two PhD students from Delft University were at an offshore wind conference in Berlin. Chatting over a beer after the event, the young men began discussing a presentation they had seen about the difficulties associated with offshore access.

For many firms in the offshore industry, moving people or freight from boats to offshore platforms poses a real challenge, particularly when the weather is bad. But as the guys talked this over an idea was born...
– a flexible gangway that could be designed in such a way as to compensate for the neutral motion of the sea. They called their invention Ampelmann after the pedestrian figures that appear on Berlin traffic lights.

From the moment they came back from Berlin, they worked on their project, taking it from a desktop structure to a small-scale model and finally to a full-scale prototype. That was in 2007. A year later, the Ampelmann company was formed with the slogan: making offshore access as easy as crossing the street.

We take this very seriously: on a day to day basis hundreds, sometimes thousands of people go to work safely using our systems all across the world. They leave their vessel, wait for the green light and transfer to their workplace, be it an offshore rig, a turbine or an FPSO. We want that experience to be equivalent to crossing the street: be aware of the action you are taking, follow the procedures and complete the transfer easy, safe and fast.

PES: How important is safety to your operation?

EH: Providing a critical service for energy companies around the world, our guiding philosophy is ‘selling safety’. An integral part of the business from the start, this approach is not just a unique selling point; it is embedded across the company’s operations and the first topic up for discussion at every meeting. Employees perform their tasks based on the company’s four core values: safety, professional excellence, team spirit and technological excellence. All personnel are properly trained. All operations are planned and detailed before execution.

We use HAZID meetings to discuss the operation with the Ampelmann system within our client’s larger project to ensure all interfaces are understood and documented. In the design of our systems FMEA studies are executed to ensure any single failure of a critical component is covered by back-up components, proper operational protocol is followed and checked against common sense. We are in continuous discussions with national HSE departments and clients’ HSE experts to continue to improve safe operations with our expanding fleet and services offered.

PES: The company’s still relatively young. What are your plans for the future?

EH: We are expanding internationally. We did many projects in other regions and we need to have local presence to really penetrate these markets further. Recently, Ampelmann has continued to increase its global footprint to bring it closer to its clients with new offices in Singapore and Qatar and later in and Houston, US in 2015. Ideally, we would like to open offices in all the wind and oil & gas hubs around the world. With a unique and effective transit solution and a growing global presence, Ampelmann is in a strong position to continue to develop its technology and solidify its position as a leading name in offshore access throughout 2015 and beyond.

Every country gives us different cultures, experiences and challenges, but provides us with the same smiles once the Ampelmann system is operating successfully on our clients’ projects. Next to expanding our fleet worldwide we are focusing more and more on innovation. Innovation has been the key to the extremely rapid growth we’ve had so we are constantly improving and upgrading our systems. We have been working hard on other solutions within the offshore access field, bringing us back to the roots of the company: Technology, Innovation and Teamwork.

PES: Can you tell us a little about the services you offer to support the life-cycle of a project?

EH: The foundation installation can be separated into several stages. Installation vessels will install the jackets/TPs. During the jacket/TP installation, Ampelmann is used to transfer people to complete the installation work on the jacket/TP. Ampelmann has been involved in projects to grout the jacket/TP.

The installation vessel’s crane will lift the jacket/TP in place and afterwards a small team will be transferred with the Ampelmann. Not only people can be transferred, the Ampelmann system has been used to transfer the grouting hose as well. In that way, time is saved as the vessel is already in the right position.

During the grouting the vessel will remain in the same position next to the jacket/TP. So, the Ampelmann system can be installed on the installation vessel for these types of services. Laying inter-array cables is another installation activity where Ampelmann is used. For the installation of cables, people need to be transferred to the jacket/TP to prepare for the cable laying and to finalize the cable installation.

Typically, the cable preparing and finalizing teams are small teams that need to be transferred quickly from jacket/TP to jacket/TP. Multiple transfers can be done for these teams. A two-vessel strategy is the most efficient way of installing inter-array cables. One vessel will be installing the cable. The cable-laying vessel does not have flexibility to sail from jacket/TP to jacket/TP to pick up crew and transfer them again, as it has the cable attached to the vessel. So, the second vessel will be used to ensure the teams are on the right TP/

jacket at the right time to ensure efficient operation.

Metmast installation involves people transferring as well. Such teams may consist of six to eight people that need to be transferred. The added value of the combination of a vessel and Ampelmann system is that the crew doesn’t need to be transferred from on onshore site but are already at the offshore location.

The Ampelmann system can be mounted on the vessel performing the work. The vessel will be servicing one metmast at a time. The installation of several met. masts in the same area can be scheduled in line with each other using the same set-up of vessel and system.

The final phase of turbine installation can be done with a dedicated walk to work vessel. Not only may it be cost-efficient, the added flexibility during this final phase of installation enables Ampelmann’s clients to deliver on time. The Ampelmann system can be installed on the vessel providing the offshore services.

After the offshore wind farm has been constructed, O&M is the main focus of the wind farm operators. Turbine manufacturers can be involved with O&M services during this phase.

Ampelmann has shown to be a valuable partner during the O&M as well. With the current developments where offshore wind farms are built further offshore, transferring crew is time-consuming. The solution of using a vessel in combination with an Ampelmann system has become the standard for O&M further offshore.

The combination of an Ampelmann system and a vessel has shown to have a greater workability and will provide offshore access during harsher weather conditions – making it a solution that is efficient and reliable for O&M. Not only do the turbines need to be maintained, but also the blades. Keeping a wind turbine operational is the main focus, and Ampelmann contributes by enabling an offshore work site.

PES: What are your thoughts about prospects for the coming year with regard to the wind industry in general?

EH: With the wind farms being located further offshore in rougher sea states, this is increasingly becoming a challenge and a more costly activity. Using larger vessels that can stay longer out at sea, personnel can easily access the turbines by the use of an access system. Besides, the vessel operators are now also able to handle larger cargo transfer to the turbine, resulting in more cost effective alternatives.

www.ampelmann.nl