



Safety at dizzying heights

PES discovers the Limpet height safety system, with its Intelligent Climb Assist feature, which includes rescue, evacuation and fall arrest. It provides assisted climbs, no matter your weight, saves maintenance time, down times and in the case of an accident – critical time.

“At the top of a wind turbine in France, Gregory, a senior technician accidentally crushed his fingers in a brake pad. In a great deal of pain and with only one working hand, climbing down the twenty story vertical ladder didn’t seem like a good idea. Luckily, Gregory was in a turbine equipped with a Limpet height safety system. Connecting himself to the end of the safety line, he pressed a button on a remote control and was quickly lowered down to the bottom. Under normal circumstances, using standard rescue

equipment, getting Gregory down would have taken at least forty minutes. In the event it took only four.”

Stephen Cornwallis, Limpet Technology’s CEO, tells this story with obvious satisfaction. Improving the speed and ease of rescue and evacuation inside wind turbines is a critical application for Limpet. “It’s great when you see your product making a material difference to the outcome of an emergency situation. Most of the time we never get to hear details of accidents, but in this case the owner of the

wind farm got in touch to let us know how pleased he was that he had installed Limpets.”

The rapid growth of the wind energy sector means that thousands of turbines have been installed across Europe, each with significant access and safety challenges for the maintenance engineers that keep them running. Started in 2009, Limpet Technology was founded to develop multifunctional products that would address and solve these problems and the starting point was to focus on the long

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ladder climbs endured by service technicians and which can result in fatigue, loss of productivity and various health disorders.

Limpet’s ‘Intelligent Climb Assist’ feature tackles this problem by offering a step-change in the quality and performance compared to existing climb assists systems. It is also unique in integrating various other safety critical features, including rescue, evacuation and fall arrest.

“We like to describe Limpet as offering ‘Next generation climb assist’, says Cornwallis. “Not only does it provide a far greater level of assistance than any other system, but the assistance auto-calibrates according to each individual user’s weight. Whether you’re 15 stone or 7 stone, you will always get assistance that’s equal to 90% of your total weight. This makes the climb practically effortless and totally negates the occupational health and productivity issues associated with climbing. And it’s also a much more reliable and cost effective solution than lifts.”

This argument appears to be gaining ground. While Limpet’s traditional market has been the installed base of turbines, retrofitting units into wind parks such as the Wigton Wind Farm in Jamaica and the Longuyon wind Farm in France, Limpet systems are now also being installed into brand new turbines.

Vensys, an up and coming German turbine manufacturer has recently signed an MoU to install Limpet climb assist systems into its new turbines in the UK, Ireland, Portugal, Luxembourg and the USA and others are set to follow.

Although ladder access remains a core part of the Company’s focus, it has significantly expanded the range and scope of the industries that it supplies. Lifting people and loads is now an equally important side of the business and over the past year, Limpets have been supplied to Tata Steel in India to allow easier and safer access for maintenance of its blast furnaces, to Cirque de Soleil and Coldplay, enabling technicians and performers to get access to high areas of their sets, to cellular

telecoms maintenance companies, so that heavy antenna to be quickly lifted and lowered from tall masts and to rope access companies permitting the maintenance and repair of bridges, buildings, wind turbine rotor blades and other tall structures.

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Limpet’s Business Development Director, Philip Taylor commented, “No matter what the industry or application, the common theme is that Limpet makes working at height easier, quicker and safer. But while safety is vitally important, ultimately we also have to prove that Limpet can lower costs and increase efficiency compared to existing methods.

“Thankfully, with a growing list of blue-chip clients and case studies it’s getting easier all the time to make that case. In the case of



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Tata Steel, using Limpets has allowed them to stop using scaffolding as the main method of access, saving days in terms of shut down time. Many of our lifting customers are seeing Limpet as an alternative to cherry pickers or cranes and are making massive savings in terms of hire cost and time to get on-site.”

Stephen Cornwallis added, “Although Limpets are always provided as a means of access, the growing range of environments and applications means that we’ve also had to become end-to-end solutions providers. Our engineers are constantly adapting systems and developing new accessories to allow Limpet performance to be optimised for each customer.

“A good example is a project in Finland, where we’re working with wind turbine company Nordex to use the Limpet as a ladder access and load lifting system during the construction phase of very tall 144-metre high turbines. Our lead engineer is out there every other week right now

and if this project goes well the potential is huge.

“We have also started to supplying Limpet for installation on emergency service vehicles. ARTLANT PTA, a chemical manufacturer in Portugal, has a huge industrial processing site and they are now using a Limpet for rescue and work positioning for the engineers operating inside chemical silos.

“The growth potential of the company as well as its focus on renewables, manufacture and export allowed it to become account managed by Scottish Enterprise in 2012 and the Company is working closely with them on a product that, it is hoped, will power its next phase of growth.

“The next big boom in wind power is offshore sites where weather and sea conditions are extreme. In order to allow technicians to access these on anything like a regular basis, the industry needs a

new generation of solutions both in terms of vessel capability as well as lifting and access systems on the turbines.

“We are developing a new high speed, high capacity Limpet lifting system with integrated PPE certification that will be able to respond instantly to wave motion. This will allow personnel or loads to be moved onto and off the vessel safely even if the deck is moving violently on the waves.

“The concept appears to have engaged the interest of industry players such as Statoil and Siemens as well as industry innovation bodies such as Carbon Trust’s Offshore Wind Accelerator and Offshore Renewable Energy Catapult.

“We will have a prototype available for demonstration in the next few weeks and after that it’s just a question of performing well in live offshore trials. If the system works like we think it will, then it will be game changing for an industry that lives and dies by being able to ensure reliable availability. For availability you need all year access and to be able to provide a cost effective method of access is the holy-grail.” ■

