Green Marine hoists 300 tonnes with Modulift beams

Lifting a 300 tonne wave energy device out of the North Sea is no easy task, so when the energy support services company, Green Marine was asked by Wave Energy Scotland to decommission the equipment, the company relied on Modulift Modular Spreader Beams to help with the job.

Based at the centre of the Scottish renewable marine energy industry in Orkney, Green Marine operates throughout Europe, supplying shipping vessels and the technical expertise to deliver a range of services to the industry including the deployment, maintenance and removal of all types of marine equipment.

GM700 gantry barge

Choosing a calm day, the experienced team carefully hoisted the device out of the sea using the specially designed GM700 gantry barge that can anchor onto the seabed or surface.

To lift the heavy wave energy device from the water safely, it required two round slings to basket the device around its middle, with the ends of these round slings connecting to the four-gantry barge ramshorn hooks via a specially designed lifting rig.

A rig design was required to ensure the crane hooks were loaded in a vertical direction and not pulled inwards towards the load. To do this, two MOD 400 Spreader Beams were required. These were configured in an inverted position, so what would normally be the top slings of the spreader beams, became the bottom round slings that would basket the load.

Consequently, the slings that would normally be classed as the ‘bottom slings’ of the spreader beam, were now at the top, connecting between the spreader beam and the crane hooks, enabling the crane hooks to be kept vertically loaded.

The wave energy device was then transported back into the port at Lyness in Orkney, where it was offloaded onto a truck, again using the MOD 400 Spreader Beams to assist in the lift.
Marine and offshore wind industry

The specialist engineering company, Modulift is a regular supplier of standard off-the-shelf heavy lifting equipment to the marine and offshore wind industry. In particular, Modulift’s Modular Spreader Beam range is especially useful as they can be quickly and easily adapted to suit different spans and rig configurations.

Modulift works closely with customers to design lifting rigs incorporating standard products to provide an optimum solution and will custom design products for when a standard product will not suffice.

Green Marine invested in the pair of MOD 400 Spreader Beams, knowing that not only are they designed and manufactured to the highest standards and come with DNV type approval, but they could be reused for all its heavy lifting projects in conjunction with their impressive gantry barge.

The Managing Director of Green Marine, Jason Schofield said: “We chose Modulift to supply the required 400t spreader beams as they were excellent to work alongside with and knew exactly what was required for our operations. Delivery was made on time and the MOD 400 spreader beams have been performing extremely well. We are now investigating the use of some of their custom designed trunnion end units that can be retrofitted easily to our spreader beams, which makes them an even more useful tool in our rigging store!”

Modulift’s Sales Director, John Baker said: “Our trunnion end units are designed to replace standard end units and drop links, to provide an innovative shackle free lifting solution. Modulift Trunnions are available for higher capacity spreader beams where the cost, physical size and weight of the shackles can be potentially prohibitive, utilising the trunnions has been proven to reduce cost, increase safety and speed up the whole rigging process.”