IHC EB Inter Array Trenching Spread

As the number of offshore wind turbines increases, so too does the need for cost-effective and efficient installation solutions. IHC Engineering Business (IHC EB), part of the IHC Merwede group, has risen to the challenge and developed a self-propelled trenching solution for the inter array power cables used to connect turbines on offshore wind farms. Their new ITAT and ITAT-HG trenchers was launched at RenewableUK 2010 on stand 121.

The spread has been designed specificallyfor this work and to maximise functional operability, speed of trenching andease of mobilisation. For the first time IHC EB is intending making thetrenching spread available for rental as well as for purchase.

“Trenchers have very definite appeal todevelopers who would rather see them used than ploughs for inter array workclose to the turbines. As they are self-propelled there is no necessity for thecable lay vessel to come too close to the turbines,” explains Robbie Blakeman,Special Projects Manager at IHC EB. “We are very much looking forward toexplaining the features of the new spread to developers and contractors atRenewableUK 2010.

“The ITAT uses trenching and jettingtechniques – for which we have partnered with Pharos Offshore Group Ltd on thisdevelopment; while the ITAT–HG, for use in harder soils than the ITAT, is basedon our successful i-Trencher design – in effect, a ‘mini-i-Trencher. We aretherefore working with known technology to ensure a cost-effective andefficient solution to a major challenge. Both the ITAT and ITAT-HG can belaunched and recovered by means of a common launch and recovery system(EM-LARS), making mobilisation simpler and quicker, while also reducing theoverall cost.

The ITAT is seen as the ‘tool of choice’due to the predominantly sandy soil conditions evident in the majority of windfarm sites, however, when survey data highlights the presence of harder claysor gravels which are not readily jettable, the ITAT-HG can be quickly deployedto mechanically trench the problem section. Through the use of a commonumbilical and subsea pod with quick release mounts and a single control system,the two machines can be rapidly interchanged, launched and recovered, givingflexibility when working offshore where the reality may not be as predicted bysurvey data.

“It makes sense for us to work on a jointventure basis with Pharos, so that we can provide a tried and tested ROV-basedsolution – a departure from our more normal tractor-type vehicles. We will bemanufacturing and supplying the ITAT as a fully integrated unit,” says RobbieBlakeman. “Both vehicles have a number of features built into them to reflect adedicated use in inter array work, such as low profile buoyancy for reducedsusceptibility to cross currents and large tracks for operation in very softsoils.

“The ITAT and ITAT-HG have a common controland power system which ensures that deck space and costs can be kept at aminimum. We firmly believe this is an elegant and highly cost effective solution,and foresee much demand in the coming years on the UK’s Round 2 and Round 3sites and on offshore wind farms around the world.”