COMMUNICATION HUB FOR THE WIND ENERGY INDUSTRY

SPOTLIGHT ON NORWAY
EARLY INDUSTRY GAME-CHANGER

TORQUE & TENSIONING
THE RIGHT TOOLS FOR THE JOB

CONDITION MONITORING
INDUSTRY NECESSITY

WEATHER FORECASTING SERVICES
CONFIDENT PROJECT PLANNING

Image courtesy of: HR Wallingford Ltd
MacArtney Underwater Technology (MacArtney) is a DK national company with headquarters in Esbjerg on the west coast of Denmark, a further 18 operations scattered throughout the world and a global network of 26 representative operations spread across every continent.

Being a worldwide leader in the supply, installation and maintenance of underwater technology products and systems, the company is a well-reputed exponent of competence and professionalism.

When it comes to cooperativeness and due diligence, the organisation exhibits a second-to-none attitude which is a consequence of the forty years of experience that have ensured ample qualities and a serious and in-depth approach to any project to be addressed.

**UNDERWATER TECHNOLOGY**

Underwater technology covers a highly diverse market including offshore oil & gas geophysical exploration, development and production, diverse military activities including MCM and underwater security, civil engineering, ocean sciences, environmental studies and research. The company policy is to deliver tried and tested technical system solutions to the operations in this harsh working environment. The organisation is controlled by an established certified DS/EN ISO 9001:2008 quality assurance programme, which was established in 1993.

**MacArtney – trusted solution provider of vessel deck systems and equipment**

1. Cable carousel
2. Spooling arm
3. Control cabin
4. Height gaining container
5. Containerised control system
6. Offshore track tensioner
7. Base frame for spooling arm
8. Angle sensor
9. Staircase
10. Track ways
11. Auxiliary winch
12. Offshore track tensioner
13. Auxiliary winch
14. Cable chute
15. A-frame
16. Overboarding sheave
17. Power quadrant
FINANCIAL STABILITY
Over the past 20 years, the company has shown a sustainable growth and financial stability and is currently rated AAA for highest creditworthiness by the international credit rating bureau Bisnode. The company employs more than 450 qualified people worldwide.

TRUSTED SOLUTION PROVIDER
They manufacture state-of-the-art products, fully integrated systems and innovative custom solutions, from design to installation and are supported by training, service and the existence of local workshops. The organisation is therefore the trusted solution advisor of any customer having taken delivery of a MacArtney product or system. Upon commissioning and installation, the company is deeply committed to becoming the first-choice service provider of their customers.

ONE STOP SHOP
In addition to supplying challenging subsea solutions from concept to completion, they also specialise in designing and manufacturing vessel deck systems and equipment for the renewable energy industry and in particular the offshore wind sector.

The most important part of their business is to optimise the supply chain through a combination of integrated solutions and tailored services.

Complete carousel packages with either electric or hydraulic drive units for cable loading, marine transit and cable unloading include carousel, loading tower, spooling arm, offshore track tensioner, linear cable engine, pick-up arm, deck track ways, cable chutes, control systems, cable guide, and operator's cabin. Priority is given to cable projects providing cost-effective and safe installation of offshore power and communication cables.

SYSTEMS AND PRODUCTS
The system and product base is extensive and falls into a number of main categories…

» Infrastructure systems and products comprising among others underwater cable systems and the SubConn® connector range, an extensive range of underwater fibre optic connectors as well as moulding and encapsulation services

» Launch and recovery systems and products comprising a range of standard and custom-designed electrical and electro-hydraulic winch systems, A-frames, sea cranes and rotary solutions ranging from simple, electrical slip rings via multiple pass fibre optic rotary joints to huge FPSO systems

» Telemetry systems comprising among others the industry standard approved NEXUS family of fibre optic multiplexers and other electronics and software-based products and services

» Remote technology systems comprising the TRIAXUS family of high speed towed undulators and the FOCUS family of Remotely Operated Towed Vehicles (ROTV)

» Instrumentation systems comprising a broad range of sensor systems like CTD systems, optical instruments, samplers and sonars

» Engineering and project management. This category covers the in-house engineering and technical expertise to support the systems and product range
System integration is an important part of the organisation’s engineering capabilities. From draft to delivery, their systems are fully supported by extensive in-house test facilities and quality system procedures.

MERGING LEADING-EDGE TECHNOLOGY AND UNDERWATER EXPERTISE

Their winch and handling solutions embrace some of the most advanced and rugged systems available and have been trusted by operators within maritime industries for decades.

Being a dedicated and innovative winch supplier, designing winches and A-frames for all types of requirements, the company delivers a broad range of special winch and handling solutions and offers design and engineering support for custom handling system projects all across the globe. These special systems are used in offshore, subsea, defence, scientific and civil engineering projects throughout the world and projects often involve close cooperation with the customer to identify technical needs and expectations.

Winches play a pivotal role in the launch, handling, and recovery of marine and underwater equipment, systems and applications across all ocean-related industries. Owing to this central role, the winch concept has undergone a string of intense developments, creating powerful, efficient and intelligent systems that are fully abreast with the advanced underwater systems that they support.

WINCH PORTFOLIO

With a portfolio spanning from electric wet and dry-mate connectors, cables and terminations, through telemetry, subsea fibre optics and cameras, to remotely operated underwater vehicles and custom instrumentation platforms, MacArtney engineers know from experience what to demand from a winch, when handling specific equipment types under harsh marine conditions.

While the company’s winch and handling systems are among the most operator trusted solutions available, the real strength of the winch portfolio lies in the competences and the expertise of the staff.

CABLE HANDLING PRODUCT RANGE

The organisation’s CEMAC offshore cable handling equipment is intended for pipeline and cable-laying deployment with a view to handling a wide range of flexible pipe products including cables, umbilicals, dynamic risers and hoses.

The offshore cable handling equipment represents safe offshore cable handling solutions and safe cable handling monitoring, designed to ensure ease of loading and discharge on board cable and pipe laying vessels.

The equipment belongs to a product line, which incorporates both cable carousels, offshore track tensioners, linear cable engines, offshore power quadrants, and trencheders.

Featuring durability, high performance and easy integration, they all come in standard and custom configurations, are easily combined and fully synchronisable with each other by means of the application of standard software control systems.

Being sea and road transportable, the designs of the appliances represent compact and portable modular systems, which are easily mobilisable and cost-effective in terms of transportation. All main components are standardised, which facilitates adaptation and upgrading to the required performance and capacity.

CEMAC PROPERTIES

The systems assist in laying the cable from the vessel onto the seabed in a safe and efficient manner using precise
Osbit Ltd, the offshore engineering and technology company, has completed its first project for Seajacks with the delivery of a bespoke access system for the world’s most advanced offshore windfarm installation and maintenance vessel, Seajacks Scylla.

The gangway, which is now in operation aboard the Seajacks Scylla, has been deployed to the DONG Energy Walney Extension Offshore windfarm development in the Irish Sea, off the west coast of England. Once fully completed in late 2018, the offshore windfarm will become the world’s largest at 659MW – capable of powering more than 500,000 homes.

**TRANSITION PIECE ACCESS**
Providing access from the vessel to turbine transition pieces, the telescopic, variable height gangway is a new addition to Osbit’s existing offshore access capability and has been specially-designed to suit Seajacks’ requirements.

Extending up to a distance of 35 metres, the gangway has a wider than usual operational height capability of between -45 degrees and +15 degrees to ensure it is not restricted by the jack-up vessel’s height. The Scylla jack up vessel is fitted with 105 metre-long legs, which have the ability to install components in water depths of up to 65 metres.

Certified by DNV GL to its personnel transfer offshore gangway standard, the gangway is deployed using a dedicated auxiliary crane, which enables the vessel’s 1,500 tonne leg encircling crane to focus on installation operations.

**DELIVERED ON SCHEDULE**
Designed at its Riding Mill office and assembled at its Port of Blyth base in the North East of England, the Northumberland-based company completed the project within its 18-week schedule. The gangway was road transported from the Port of Blyth to Holland, where the vessel was mobilised.

Osbit engineers oversaw the system’s delivery, installation & commissioning and also provided training on its operation and maintenance to vessel crews.

**EXCITING PROJECT**
Brendon Hayward, Managing Director of Osbit Ltd, commented: “We’re delighted to work with Seajacks, in this exciting project which further expands our presence in the offshore access solutions market and demonstrates our capability to diversify and adapt our solutions to meet the cost savings and efficiency improvements required by our clients.

“Collaborating closely with Seajacks, our bespoke gangway is designed to provide a wide scope of height deployment, which will prevent operational downtime and enable seamless integration into its landmark vessel’s extensive jack-up capabilities.”

Osbit Limited