

Motus Technology's crane is developed to lift five tons at 30 meters. (Courtesy: Motus Technology)

▼ CONSTRUCTION

Motus wins contract for Empire Wind 1 crane

Motus Technology has been awarded a contract by Seatrium Limited to deliver engineering, design, and construction of the platform main crane to Empire Wind 1 Offshore Substation.

The main platform crane from Motus will be delivered to Seatrium's Singapore yard, before the offshore substation platform will be installed about 20 miles south of Long Island.

Motus Technology has delivered lifting and handling solutions for the offshore wind market with the stateof-the-art 3D motion compensated and solid technology for Commissioning Service Operational Vessels (CSOV).

"We take genuine pride in bringing the benefit of our technological expertise to the offshore wind sector and to be chosen by Seatrium Limited for the design and delivery of the main pedestal crane for installation on the Empire Wind Offshore Platform," said Magnus Lerheim, sales manager at Motus Technology.

Following completion, the Empire Wind 1 OSS Platform will be operated by Equinor. The project, about 15 to 30 miles from Long Island, will power several hundred thousand homes in New York and is expected to be a significant contributor in supporting the United States' energy transition goals for a low-carbon future.

The delivery from Motus Technology consists of a self-contained electric-hydraulic offshore crane with a

focus on safety, reliability, and quality. The crane is developed to lift five tons at 30 meters and is designed in accordance with the API 2C Eight Edition. It will comply with U.S. statutory laws and regulations for inspection, installation, and operation in offshore U.S. federal areas.

As the crane will be left unattended for long periods, special considerations are given to protect the crane components from the harsh offshore conditions and to reduce the required maintenance and start-up time for mobilizing and demobilizing on the platform.

"This contract award supports our strategy to increase our supply of highend cranes to the renewable industry," said Kjell Hollen, CEO of Motus Technology. "Through its operations in the U.S., the Empire Wind platform will



Venterra company Gavin & Doherty Geosolutions has been awarded a contract for Baltica 1 offshore wind farm. (Courtesy: Venterra)

contribute to decarbonization offering non-fossil power from offshore wind. Empire Wind 1 is one of the most mature offshore wind projects on the east coast of the U.S., and we are excited to be part of this development."

MORE INFO www.motustech.no

CONSTRUCTION

Venterra company awarded Baltica Wind Farm contract

Venterra Group company Gavin & Doherty Geosolutions, a leading global offshore wind services provider, has been awarded a contract to provide early supervisory and investigatory geophysical and geotechnical services including the development of a ground





Mooreast Holdings Ltd. has secured an order to supply its proprietary anchors for a precommercial floating offshore wind farm. (Courtesy: Mooreast)

model and the conceptual design of foundations for subsequent design stages for the Baltica 1 offshore wind farm.

"We are thrilled to be selected to deliver design services for the Baltica 1 offshore wind farm project," said Paul Doherty, Venterra's executive vice president for engineering. "This appointment by PGE Baltica is a significant acknowledgment of our teams' technical proficiency and the breadth of specialist services we offer including geoscience, advisory, and design capabilities from concept through to detailed engineering.

Working on such a prestigious project in the Baltic Sea is a privilege, a project which is key to Poland's ambitious offshore wind targets."

Having worked in Poland for more than a decade and establishing a local presence in 2022, Venterra has been at the forefront of delivering specialist technical services for several Polish offshore wind-farm projects, including Baltica 2 and Baltica 3. The insights and in-depth technical understanding gained from these projects has provid-

ed the Venterra Geoscience and Venterra Design teams with invaluable knowledge of the ground conditions in the Baltic Sea. This experience is anticipated to be a significant advantage for the Baltica 1 project.

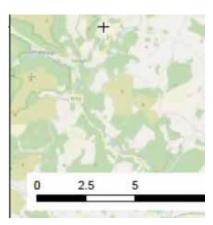
The award of the Baltica 1 project contract marks a continuation of a successful period for the Venterra Group, which has recently secured contracts across the Asia-Pacific region, North America, and various European countries.

MORE INFO: www.venterra-group.com

CONSTRUCTION

Fewer turbines needed in Codling Wind Park

Ireland's largest Phase One offshore wind project, Codling Wind Park, which will be off the County Wicklow coast, has confirmed a further 25 percent reduction in the number of tur-



Codling Wind Park could begin construction in 2026-27. Construction is expected to take two to three years to complete. (Courtesy: Codling Wind Park)

bines that will be required to deliver the project.

When the details of the project's final design and layout were confirmed, the project reported a maximum of 75 and a minimum of 60 turbines. The minimum proposed turbine tip height had also been set at 288 meters or a maximum of 314 meters.

The development will still generate 1,300 MW of clean electricity, enough to power more than 1 million homes.

"This is one of the largest energy infrastructure investments ever seen in Ireland and a tremendously exciting one to work on," said Scott Sutherland, project director. "As well as supplying over a quarter of Ireland's 2030 offshore wind target, Codling Wind Park will support Irish energy independence, help stabilize the cost of electricity for Irish consumers and will displace 1.7 million tons of carbon. It will also help the country realize its enormous potential to become a world leader in offshore wind.

Through various rounds of public consultation, we have listened to the people of Wicklow Ringsend and Poolbeg and incorporated their feedback into the design where possible. The reduction and layout of the reduced number of turbines was always key in that regard."

While the original estimate for the number of turbines required had been put at about 440, advances in

888.502.WORX

torkworx.com

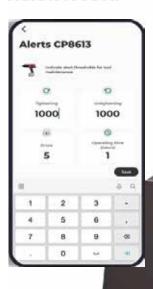


NEED BATTERY TORQUE & ANGLE? NEED SMART DATA COLLECTION?

NEED IT FAST & COMPACT?

NEED IT RIGHT NOW?

I KNOW A GUY!!





WIND ENERGY SOLUTIONS

- COMPLETE TURBINE SPECIFIC TOOL KITS FOR RENT
- ONSITE TOOLING SUPPORT SERVICES
- COMPLETE OEM TORQUE AND TENSION SYSTEMS
- ISO 17025 ACCREDITED MOBILE CALIBRATION SERVICES
- REPAIR SERVICES FOR MOST TOOL MODELS
- TORQUE CONTROL SYSTEMS WITH ONBOARD TRANSDUCER
- BATTERY OPERATED BOLT TENSIOING SYSTEMS
- BATTERY OPERATED HYDRAULIC WRENCH SYSTEMS
- ELECTRIC & BATTERY GEAR TURNING SYSTEMS
- SMART TENSIONING SYSTEMS
- ONSITE DEMO TOOLS AVAILABLE

sales rental service consulting engineering wind-turbine technology and more efficient turbine models combined with a more detailed understanding of the wind-farm site, means a maximum of 75 turbines – a reduction of 83 percent – will now be required.

The project will be about 13 to 22 kilometers off the Co. Wicklow coast between Greystones and Wicklow Town.

The project will help Ireland meet more than 26 percent of its 2030 grid connected offshore wind targets while also helping the country achieve its target of generating 80 percent of its electricity from renewable energy by the same year.

When developed, Codling Wind Park will be Ireland's largest offshore wind farm.

The project is expected to create more than 1,000 jobs in the construction phase and 75 new, long-term jobs associated with its proposed Operations and Maintenance Base.

MORE INFO www.codlingwindpark.ie

▼ CONSTRUCTION

Mooreast secures wind-farm anchor order

Mooreast Holdings Ltd. has secured an order to supply its proprietary anchors for a pre-commercial floating offshore wind farm. Located off the French coast of Port-La Nouvelle and Gruissan in southern France, Eolmed is a project developed by Qair, a European independent energy company, with TotalEnergies and floating technology supplier BW Ideol.

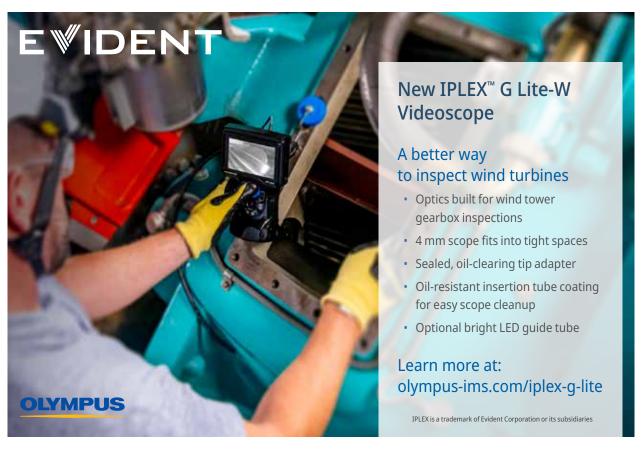
Singapore Exchange-listed Mooreast, a total mooring solutions specialist and Asia's only ultra-high power anchor manufacturer, recently announced it has partnered with French installation contractor Bourbon Offshore to supply Mooreast's MA5S mooring drag anchors. The latter will provide transport and instal-

lation services to the 30-MW pre-commercial project, the biggest of the first three floating wind energy projects to be developed in the country.

"The project win in France underscores the growing confidence that international players in the floating renewable industry have in us," said Sim Koon Lam, found and CEO of Mooreast. "The European floating wind-energy sector is known for its rigorous standards and we are proud that Mooreast is able to achieve market acceptance in this region."

Up to 35 tons each, the anchors command a holding power of up to 1,210 metric tons, underscoring its remarkable strength-to-weight ratio and efficiency. The anchors will be used to moor three floating wind turbines. The anchors are expected to be delivered by October 2024, and the order will contribute to Mooreast's FY2024 performance.

The anchors will be manufactured at Mooreast's yard at 51 Shipyard Road,





Evo Torque Battery Tool





Norbar sets the bar high again with THIS battery-powered multipler

Longer battery life: Powered by an efficient brushless motor and an 18V 5.0 Ah battery. **Industry-best accuracy:** It's +/- 3% of READING, not 3% of full scale, there is a big difference. **Air Cooled:** Because we don't like overheated tools either.

Two-speed operation: Making EBT the fastest battery-powered torque multiplier available.

Torque and Angle Capable • Large Internal Memory Data • Transfer Via Bluetooth®

Each EBT kit contains the following:

2 batteries, 3-port fast charger, Spare square drive, Lifting handle, Carrying case

EBT is available in six versions, each with torque-only and torque + angle modes;

1,000 lb-ft single speed

2,000 lb-ft single speed

3,000 lb-ft single speed

1,000 lb-ft auto 2-speed

2,000 lb-ft auto 2-speed

3,000 lb-ft auto 2-speed53

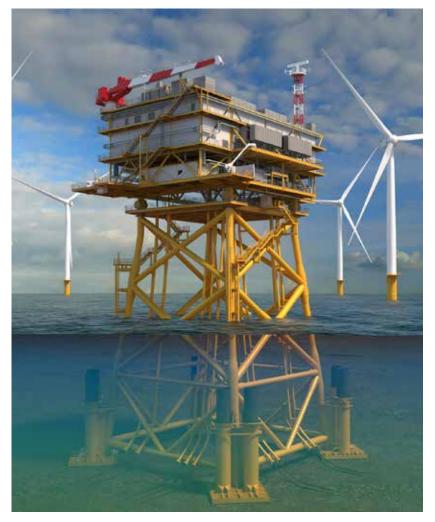
Norbar Torque Tools, Inc.

36400 Biltmore Place, Willoughby, OH 44094

440.953.1175

sales@norbar.us

norbarusa.com



Mammoet's new leg cranes are fully electrically driven and have a 1,600-ton lifting capacity, (Courtesy: Mammoet)

Singapore, where the group has also developed a range of anchors, chain stoppers and buoys to moor floating platforms.

MORE INFO mooreast.com

CONSTRUCTION

Mammoet to replace leg cranes in two vessels

Mammoet has been contracted by GustoMSC to carry out leg crane replacements on two offshore wind-farm installation jack-up vessels (Wind Orca and Wind Osprey) for the Danish transport and installation company Cadeler.

Next-gen turbines are growing, and their components are getting larger and heavier. To meet the enhanced installation and maintenance requirements of their components, the equipment used to move, lift, and install them must be upgraded and replaced.

The new leg cranes are fully electrically driven and have a 1,600-ton lifting capacity, making them ready to install and service next-generation wind turbines with capacity ratings exceeding 14 MW.

This project represented a unique one for Mammoet, using not only one

of the biggest cranes in its fleet but also its own yard in Schiedam to perform the job. The location allowed a rare opportunity to schedule projects simultaneously to increase their efficiency.

For the project, Mammoet used its PTC210-DS crane, one of five 5,000-ton class ring cranes in its fleet. The colossal size and stature of the crane belie its greatest strengths – its versatility and ability to operate in areas where space is limited.

"The PTC210-DS is the perfect crane for this job," said Dirk Knoester, Mammoet senior adviser. "It has a relatively small footprint combined with 360-degree slewing, with the possibility to switch between fixed and luffing jib mode (as only the PTCs can) resulting in the largest possible working area."

"Our yard has a unique location in the port of Rotterdam, and this gave us the possibility to position the crane between the two vessels and serve them at the same time," said Remco Zandstra, Mammoet senior commercial manager. "Not only does this save considerable time, by minimizing movements of cranes in the yard and vessels along the quay, it also creates the safest possible solution to perform this project."

MORE INFO www.mammoet.com

INNOVATION

Renewable Lubricants introduces Bio-Fleet hydraulic fluids

Renewable Lubricants introduces biodegradable Bio-Fleet™ Hydraulic Fluids that perform like synthetics but are economical enough for frequent oil change environments due to contaminants. These patented formulations meet or exceed common performance protocols including Vickers M-2950-S, Vickers 1-286-5, U.S. Steel 126, and U.S. Steel 127.

Highly inhibited against moisture and rusting in both fresh and sea water, the fluids are ideal for hydraulic equipment operating outside where high

Technical Education. Career Development. International Networking.

Log on to www.stle.org/ annualmeeting for registration and hotel information.

Early Birds! Register by March 22 and save \$100 on your meeting fee.



78th STLE Annual Meeting & Exhibition

May 19-23 Minneapolis Convention Center Minneapolis, Minnesota (USA)



Whether you work in the field or lab-in industry, academia or government-STLE's Annual Meeting has programming designed specifically for you. Please join your peers from around the globe for five unique days of technical training and industry education that could change your career.

Program Highlights:

- 500 Technical Presentations and Posters
- 13 Lubrication-Specific Education Courses
- Sustainable Power Generation Track including Fossil Fuels, Hydropower, Nuclear, Solar and Wind
- Discussion Round Tables An Idea Exchange Event
- Electric Vehicles Track and Course
- Trade Show
- Commercial Marketing Forum
- Business Networking



Society of Tribologists and Lubrication Engineers 840 Busse Highway, Park Ridge, Illinois 60068 (USA)

P: (847) 825-5536 | F: (847) 825-1456 | www.stle.org | information@stle.org

Follow us on: 🚹 💟 🔼 🛅







The new servo package expands the Sinamics drive, offering a variety of application possibilities to the standard servo market. (Courtesy: Siemens)

moisture and dusty environments are prominent. Formulated to perform in hydraulic systems that require Anti-Wear (AW), anti-rust, anti-oxidation, anti-foam, and demulsibility properties.

These proven hydraulic fluids are available in ISO 22, ISO 32, ISO 46, and ISO 68 weights to suit fleet, marine, and industrial applications such as vane, piston, and gear pumps.

Bio-Fleet Hydraulic Fluids meet EPA 21013 Vessel General Permit guidelines for Environmentally Acceptable Lubricants and should be used in hydraulic systems where low toxicity, biodegradability, and non-bioaccumulation properties are required.

Anti-wear performance meets requirements for Vickers 35VQ-25 and V-104C (ASTM D-2882) vane pumps stand tests and exceeds DIN 51524 Part 2 and 3 (HLP/HVLP) load stage 10 that is recommended for vane, piston, and gear pumps.

With a higher viscosity index than synthetics (Energy Conserving Formulas), Bio-Fleet Hydraulic Fluids have improved thermal shear stability and increased load capacity. Their extremely low volatility increases the flash and fire safety features, making them safer to use.

A direct replacement for mineral oil based hydraulic fluids, they are ideal for hydraulic systems where low toxicity, biodegradability, and non-bioaccumulation properties are required.

With oxidation performance comparable to full synthetics, Bio-Fleet fluids are among the safest hydraulic fluids for the environment.

Ideal for stationary or mobile environments, such as balers, compactors, or collection vehicles, these high Viscosity Index (VI) fluids are proven in systems up to 10,000 psi and in systems with ultra-fine filtration.

MORE INFO www.renewablelube.com

INNOVATION

Siemens introduces servo package

Siemens recently introduced its newest servo offering to the North American manufacturing industry. With the new Sinamics S200 servo, comprising a Sinamics S200 drive and SIMOTICS S-1FL2 motor with standard or flexible cable options, Siemens brings a new level of motion control to the standalone and networked machine market.

This new servo package expands the Sinamics drive, offering a variety of application possibilities to the standard servo market. The pulse train version allows a wide range of installed machines to easily integrate additional positioning axis using the onboard positioner. Meanwhile, a dynamic networking capability to motion control,

Bio-Fleet fluids are among the safest hydraulic fluids for the environment. (Courtesy: Renewable Lubricants)

i.e., Simatic PLC expands its system capabilities in the Profinet version. With a power range up to 7kW including low-, medium- and high-inertia offerings, the 1FL2 permanent magnet motors with 17- or 21-bit encoders expand the performance, as well as scale to the widest range of standard servo requirements.

The electronic type plate on the 1FL2 motor and one-button tunning in the S200 drive assures easy setup. The integrated brake resistor and integrated holding brake control add to the functions in the S200 servo-drive, and built-in under-voltage protection is provided. High durability is designed in with the coated circuit boards (3C2) in the S200 and IP65 motors with metal connection solution.

MORE INFO www.siemens.com

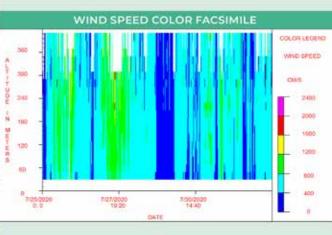




PA-XS miniature Sodar Acoustic Wind Profiler

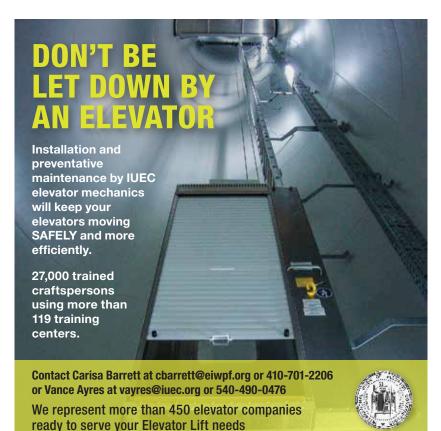
HUGE INVISIBLE METEOROLOGICAL TOWER

sales@remtechinc.com www.remtechinc.com





Vestas will power an undisclosed wind project in the U.S. (Courtesy: Vestas)





The WG11 test is the result of more than 10 years of development. (Courtesy: KASK)

▼MAINTENANCE

KASK adds WG11 tag to helmets

Ensuring advanced performance and the best head protection technologies is a priority for KASK. The KASK Rotational Impact WG11 Test is the result of more than 10 years of development and evaluation of rotational impact testing methods and measurements and provides users with an additional proof of the safety of our helmets.

To further reinforce the company's commitment, it has decided to introduce an informative tag on each helmet and a label on the boxes.

MORE INFO www.kask-safety.com

MANUFACTURING

Vestas gets 554-MW order for U.S. wind project

Vestas has received a 554-MW order to power an undisclosed wind project in the U.S. The order consists of 123 V163-4.5 MW turbines, Vestas' newest high-capacity factor wind turbine.

The orders include supply, delivery, and commissioning of the turbines, as well as a multi-year Active Output Management 5000 (AOM 5000) service

agreement, designed to ensure optimized performance of the asset.

Turbine delivery begins in the third quarter of 2026 with commissioning scheduled for the first quarter of 2027.

MORE INFO www.vestas.com

MANUFACTURING

Timken expands roller bearing line

The Timken Company, a leader in engineered bearings and industrial motion products, has expanded its offering of energy-efficient roller bearings to provide more sustainable solutions for a wider range of applications across industries. The offering includes tapered, spherical, and mounted roller bearings commonly used in industrial applications, such

as drives, pumps, and compressors.

"We continuously collaborate with our customers to solve the world's most challenging problems and applications, while innovating product and process technologies focused on changing market needs and emerging trends," said Andreas Roellgen, executive vice president and president, Engineered Bearings.

"Our expanded line of bearings is a direct result of our work with customers to further reduce friction, increase efficiency and drive greater sustainability in their products."

Timken's list of sustainable product attributes creates value over the life of its solutions, from design to recycling. The company designed its bearing line with enhanced geometries and finishes, which help reduce torque, improve mechanical efficiencies, and consume less energy. These newest bearings add to the extensive catalog of sustainable and energy-efficient products Timken has developed with, and for, custom-



Timken's expanded offering includes tapered, spherical, and mounted roller bearings commonly used in industrial applications. (Courtesy: Timken Company)

ers across a diverse mix of industrial markets. λ

MORE INFO www.timken.com



