10th EDITION

OFFSHORE JACK UP MIDDLE EAST

OJME 2022, 4-5 October, UAE, Abu Dhabi, Sofitel Corniche

International Conference & Exhibition

OFFSHORE JACK UP MIDDLE EAST
OJME CONFERENCE

Theme:
New Ways New Days

180+ Delegates

27+ Speakers

13+ Exhibitors

250+ Visitors

POST SHOW REPORT

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The 10th annual Offshore Jack Up Rig Conference (OJME) 2022, was the latest milestone in the history of OJME, as the conference completed 10 years. OJME conference was first held in 2013 in Dubai, UAE. The theme of this year was "New Days New Ways". The event is a congregation of the best minds in the industry and it provides the best networking platform for the industry players compared to anything else in this space.

A total of 275 key executives attended the Conference, including CXO's from ADNOC Drilling, ADNOC L&S, ADNOC Offshore, Aramco along with drilling contractors, classification societies, rig designers, barge owners, equipment manufacturers & suppliers, digital solution providers, financial institutions & R&D executives. The event saw participation from UAE, Saudi Arabia, Norway, UK, USA, Nederlands, Germany, India, Egypt & France.

It was a very proud moment for OJME as for the first time the visitor category was opened & attracted over 300 visitors to visit the exhibition. It was the first ever OJME event of this scale at which the attendees were able to actively engage with and reach out to a wider range of stakeholders.

The conference provided an important platform for enhancing cross-sectoral communication and collaboration among Jack Up Rig & Liftboat experts from all over the world. The high number of participating countries and organizations fosters an extremely productive exchange of ideas and technical information. Delegates engaged in numerous meetings and negotiations, which enabled many to gain new knowledge and enhance their understanding of various technical aspects of the business & operations. To that effect, the conference sessions were designed to provide participants with an in-depth understanding of the industry that would allow them to benefit from the lessons learnt during the implementation at their resepetvive work bases.

Additionally, the conference served as a forum for representatives from the industry to share the knowledge along with decision makers to interact and build bridges. The different sessions provided the framework of wider discussions on how innovation has been fostered to date and what can be done to direct innovation applications in the future. The two days were buzzing with lively discussion and debate, not only during the interactive sessions, but also during the networking sessions.

Conference Focus

- Overview and outlook of offshore rig market
- Opportunities and challenges for international drilling contractors in regional projects
- Project Collaboration - Opportunities
- Technology Advances in Rig Design
- Operations and Maintenance for sustainable business
- Offshore Drilling HSE Challenges
- Life Extension -- Best Practice Approaches for Aging Assets
- Jack Up barge capabilities for Well Intervention Support
- Automation a game changer for offshore rigs & operation
- Contract and Risk Management
- Addressing critical drilling challenges - Technological advancements

Participating companies

- Aban Singapore
- ABS
- ADNOC Drilling
- ADNOC L&S
- ADNOC L&S
- ADNOC Offshore
- Advanced Watertek
- Ali & Sons Marine Engineering Factory
- Allrig Group
- Alucor
- AMOS
- Applus velosi
- ARO Drilling
- Bureau Veritas
- Capital Strategies
- Combiflloat
- Constellation Marine
- Control Contracting & Trading Co. (Pvt.) L.L.C.
- DESMI Pumping Technology A/S
- DNV
- Dolfines
- Dropsafe
- Emarat Aloula Contracting Co.
- Faith Energy
- Foresight
- FORMURA
- Friede & Goldman, Ltd.
- Global Maritime Consultancy Ltd.
- GustoMSC | NOV
- Hatenboer Water Middle East
- Jacking Solutions
- Jagson International Ltd.
- JANA Marine Services Co. LLC.
- JSA Loadmaster
- Keppel Letourneau
- MODUTEC
- Monitor Systems Scotland Limited
- Myrcator Marine & Cargo Solutions FZE
- National Oilwell Varco
- NOV Rig Technologies
- NPCC
- Ocean Oilfield
- Oceantech Solutions
- PMO Global
- Rystad Energy
- Saudi Armco
- Sea Delta Marine
- Seaway 7
- Shelf Drilling
- Specialist services
- Sphere Offshore
- SRI Energy
- Steven Supply International
- SV Energy Systems
- Tasneef
- Vahana Offshore
- Vallourec
- Velosi Certification Services LLC
- Vessels Value
- WireCo
- Zentec Inc.
- NOV Rig Technology
- NPCC
- OES Group
- Overseas Marine Logostics
- Pacific Marine Engineering/ Ship Repairing
- Reliable Fabricators Metal
- Rystad Eneregy
- Saiber Innovation Technologies
- Schlumberger
- Sea Delta Marine & Offshore
- Seadrill
- Seatek Oil & Gas Services
- Shelf Drilling
- Specialist Services
- Sphere Offshore
- Tasneef
- Trinity Hydraulic Project LLC
- Vahana Offshore
- Vallourec
- Vantage
- Zakher Marine International
- Zamil Offshore
- Zentec Inc.

Transformations need collaborative efforts

Knut Ørbeck-Nilssen, CEO, DNV Maritime

In shipping and around the world we are facing tectonic transformations. Escalating political tensions, rapid digitalization, demands on crew and assets, and the associated safety challenges heaping pressure on maritime stakeholders. And over the grand challenge of our time – decarbonization.

Classification societies have all been working to support and facilitate change for many years. We can act as trailblazers for regulators, gathering expertise, partnering with the industry, and developing guidelines. And we can work with customers and stakeholders across many industries to enable solutions.

This is one of the key findings of our latest Maritime Forecast to 2050, Low and zero carbon infrastructure and supply chains are going to be critical to achieving decarbonization. But only with cross-industry cooperation is this possible – the maritime industry cannot do this on its own.

Therefore, events like the OJME are so important. They are the ideal platform for different industries to meet and show how we are moving from declarations of intent to action for a better, safer, and more sustainable future.

The UAE has been among the most successful regions in the world in utilizing cross-industry collaboration. DNV has been proud to add to these efforts, for example in the annual Regional Offshore Committee, the rig owners' workshop organized in partnership with Adnoc Drilling Company during ADIPEC, and the rig owners' seminar that has been running for close to two decades.

The Middle East is an agent of change in the global jack-up global industry, with many contributions to changes in rules and regulations. However, tackling these coming challenges will mean that the whole world needs to learn from different regions. For example, the emergence of Green Corridors and the idea of an R&D fund could encourage regional innovation. This is something we in DNV see as having real potential because it enables different regions to develop, test, and implement tailored solutions that meet the needs of the local ship segments and owner requirements.

During the pandemic, shipping pulled together to safeguard world trade under incredibly difficult circumstances. The same uniformity of action involving all value-chain stakeholders is needed now if we are to rise to the challenges upon us.

We need a collective, ongoing effort, where class, regulators, suppliers, owners, charterers, and yards all work together. And all players in the energy space will need to work with shipping on delivering the new fuels, many of which will need to draw on the lessons learned from the fuels we have now. Because the fuel of the future is collaboration and there is no time to waste.

In a world struggling to recover from the ravages of COVID-19 and its aftermath, there are scores of lessons to be learnt. The most important lesson is the need to recognize danger before it strikes and to take early decisive action to avert the tragedy that is likely to unfold from human inertia in the face of impending disaster.

Global warming resulting from emissions of Greenhouse gases (GHG) is a reality that cannot be wished away. Already the impacts of global warming are starting to disrupt human lives. Unless early action is taken by every segment of society, the calamity that global warming will unleash upon mankind, will make even the tragedy of the recent pandemic seem relatively insignificant. Greenhouse gas emissions are steadily warming up the planet. Scientists have already warned of the impact of this global warming. Governmental meetings.

have resulted in pledges and resolutions that already show signs of missing the target of limiting the temperature rise to 2 degrees above pre-industrial revolution stage.

This paper highlights the urgent need for the Jackup industry to play its part and contribute to the national objective of emission reduction for GHG.

How COVID-19 has affected Lives in UAE

The pandemic that raged across the world has taken a toll of human lives. Because the virus caught the world unprepared, the initial loss of human lives was enormous as a populace grappled to understand the implications of a hitherto unknown threat. Not having sufficient time to analyze the impacts of the virus, governments of countries took whatever steps they felt might mitigate the spread of the virus. Flights got suspended, gatherings of people were restricted, social events were banned and borders of countries sealed off in an attempt to contain the contagion.

The obvious question that this raises is, "Had we somehow known that the Covid-19 virus would pose such a huge risk to humanity before the virus got released into the world, would we have done something different?" Would we, for example, have taken all those extreme precautions and avoided the virus altogether?

Evidence points to the fact that we would, in all probability, not have done so. We were destined to bring on to ourselves all those human sufferings, purely because of the inertia of the human race. It may seem difficult to believe, but it is the unfortunate truth. Even if the fallout of the Covid-19 virus had been announced to the world before the virus was released, the odds are that humanity would have done nothing at all.

Those that doubt the above statement are invited to ask themselves, "Why in this case is humanity doing nothing about global warming, when the impact on the planet from global warming has not only been scientifically explained to the world at large, climate change itself has already started wreaking havoc in many parts of the world. Deaths due to flooding or extreme temperatures has already crossed all previous levels. Studies carried out by Monash University and Shandong University predicts that global warming will cause over 5 million deaths. (Ref: Lancet Planetary Health).

Industrial Revolution and its aftermath

Till almost 1750, the atmosphere around planet earth remained reasonably steady. The amount of carbon dioxide in the atmosphere was fairly low (approximately0.01billiontonnes). Thus, the global temperatures remained fairly steady. Over the next 90 years, from 1750 till around 1840 the world saw the Industrial revolution. This was the time that machines started doing a lot of what humans were doing in the past. These machines needed power to run. Thus came a large-scale consumption of coal, oil and gas. All these forms of hydrocarbons generated huge quantities of CO2 and the planet soon got enveloped in more and more carbon dioxide, which resulted in global warming on a massive scale. Between 1840and 1900, the quantity of CO2 in the atmosphere increased six-fold. An alarmed world called for a concerted effort to curtail the amount of green-house gas emissions in an attempt to save the planet. By1979, when the world conference for Climate Change was held at Geneva, the quantity of CO2 in the environment had alreadyincreased1900 times over the pre-industrial revolution stage!

But the thirst for energy continued unabated. Around 1955, the first Jackup Drilling Rigs made their entry on the world scene and started drilling for oil in the waters of the Gulf of Mexico.

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In 1992, the UN Framework Convention on Climate Change (UNFCCC) was adopted and opened for signatures seeking to limit the green-house gas emissions. This was at the UN Conference on Environment and Development, also known as the World Climate Summit in Rio de Janeiro, Brazil. Since then, there have been repeated gathering of nations and increasingly strident calls to limit global warming by restricting Green House Gas (GHG) emissions. The land mark event occurred in Paris in December 2015, (finally signed off in November 2016) when a legally binding UN treaty was signed to limit global warming to well below2deg C, preferably 1.5 deg C above pre-industrial levels.

Unfortunately, at the last Conference of Parties (COP 26), the pledges by various governments showed that the earth was headed for a 2.6 deg C temperature target. In fact, considering the pledges, targets and more realistically 2030 targets, it became clear that the earth was headed for a 3 deg C temperature rise. Add to that the effect of Covid-19 on economies worldwide and the need to restore economic activity and the temperature rise threatens to be even higher. Finally, given the typical human behavior and assuming, as a worst-case scenario, that mankind is unwilling to change its ways, the planet is headed for a climate disaster of huge proportions. What is worse, it could even become irreversible - at least for the human race.

Scientists have predicted that in just a two-degree warmer world, it is not only coastal communities that will suffer. As mountains are losing their glaciers, people will lose their supply of water. Entire subcontinents will be fighting for survival. As the glaciers disappear from all but the highest peaks, their runoff will cease to power the massive rivers that deliver vital freshwater to hundreds of millions. Water shortages and famine will be the result, de-stabilizing entire regions. Everywhere, ecosystems will unravel. By 2050, more than a third of all living species could face extinction. The only redeeming thought is that the chance of avoiding two degrees of global warming is still very much within our reach, but only if emissions of green house gases are reduced by 60%over thenext10 years.

Energy and the Drilling Industry

Oil & Gas industry provides energy for the whole world. Yet ironically, the industry is also a huge consumer of energy itself. In particular, the drilling contractors remain large consumers of energy.

The reasons for this are obvious. Drilling rigs generally operate in remote locations. These locations are either in the offshore areas, miles away from land or any source of power transmission, or in the arid areas of deserts, once again far removed from the power grid. No electric power lines exist in these remote locations. Thus, there is no option for the rigs, except to generate their own power. Present practice remains for the rigs to generate power using their own diesel generator sets. On an average a typical drilling rig is therefore equipped with four-five diesel generator sets with an equivalent of around 4500 -6000 kilowatts of power per rig. The energy produced by these diesel generator sets is consumed by the heavy rig machinery to drill wells. Industry practice is that fuel supplies are paid for by the clients – the Operating companies (OPCOs). Because fuel for these generator sets is supplied by the Operating Companies (OPCOs) energy saving is never on the agenda of the drilling contractors. This has, over the years, led to a culture of waste within the drilling industry. This wasteful practice causes massive quantities of diesel fuel being burnt – for the want of a better word - needlessly. That in turn means thousands of tonnes of CO2 being dumped to the environment. The unnecessary cost to the OPCO can thus run into millions of dollars depending on the number of rigs being managed by a field operator. It should therefore be amply clear that energy management systems must become the de rigor for the jackup owners worldwide.

ISO 50001, the Energy Management Standard was first issued in 2011. To this day, it remains the only standard that does not add cost to an organization that adopts this standard. To date, it remains the only standard that adds direct savings to any organization that adopts this standard. Despite these obvious benefits, the jackup industry remained isolated from this standard. In fact, the credit for becoming the first Drilling Company that adopted this standard on all its Jackups goes to ADNOC Drilling, (earlier knownas National Drilling Company, Abu Dhabi), who implemented energy management and got certified toISO50001 in January2016.

Amongst the Jackup barge companies, the honour for becoming the world's first company to implement energy management and get certified for ISO 50001 goes to Vahana Marine Solutions DMCC, Dubai, which received the certification in April 2022.

It is noteworthy that both organizations are located in UAE. Thus, the recognition for these global firsts belongs to the United Arab Emirates, a country in the forefront of leading by example!

Since the time ADNOC Drilling led the pack by becoming the first Drilling Company in the world to implement ISO 50001 for its Jackups, other Drilling companies have followed suit. COSL Europe, Dolphin Drilling, Stena & Transocean are all certified to this standard and information about their certification to ISO 50k is now available in the public domain.
Amongst the Jackup barge Owners, as on the date of presenting this paper, Vahana Marine Solutions was the only organization to be counted amongst this august group of Jackup Owners committed to minimizing GHG emissions by adoption of the ISO 50k standard.

Placing the Country and Community Before Self

Adoption of ISO 50k results in fuel savings – large savings; it also results in reduction of costs for organizations because it reduces the running hours of the power generation equipment for these companies. But Energy Management goes beyond these narrow considerations and rewards.

A quick look at the achievements of the two UAE Jackup owners that have adopted this standard shows their commitment to the nation. The global emission of CO2 till 2022 has already reached 33.4 Giga Tonnes (G/Ts). Of this the contribution of UAE stands at 0.194 G/Ts, or 0.58% of the global emissio. (Reference: https://edgar.jrc.ec.europa.eu/report_2022) For a small nation with a correspondingly small population base, this amount is significant.

Looking at the Middle East as a whole, it is clear that the inventory of Jackup owners is much higher than elsewhere in the continent. If all Jackup owners adopt the ISO 50k standard and assuming, very conservatively, fuel and CO2 savings as evidenced by the two owners that have already adopted this standard, the potential benefit to the region could be as high as US$14 million for UAE and US$ 27.8millionforSaudi Arabia. These would be annual savings!

More importantly, if all Jackup owners adopt Energy Management, the reduction of CO2 emissions in the Arabian Gulf could amount to 123,037 Metric Tonnes... annually.
Surely, there can be no better gift to the Country, Community, and the future generation!

Cracks in weld seams of Jack-up rigs legs out of X100Q/S690LHHO and potential to solve the issue with a new alloying concept.

In the last decade the usage of higher strength steel especially of X100/S690QLHHO became usual for the construction of Jack-up rig (JUR) and wind turbine installation vessel (WTIV) legs as well as of lec encircling cranes (LEC). Shipyards established their welding procedure qualification tests (WPQT) and built plenty of JUR which showed later in service several cracks at the legs. Means rigs designed for more than 20 years lifetime need repair after the second or third inspection interval of the high strength welded nodes.

The impact of cooling time on material toughness and strength is mandatory to achieve the required mechanical weld properties. The cooling time in the interval of 800 down to 500°C is in which the most important microstructural changes occur in the high strength structural steel. This interval is limited by the upper and lower boarder. Exceeding the lower boarder – too fast cooling – leads to a too hard heat affected zone which will increase the risk for hardness cracks. Exceeding the upper boarder – too slow cooling – leads to a very high transition temperature which will end in lower material toughness. The suitable mechanical tests for a proper characterization are hardness imprints and charpy v-notch impact tests or CTOD´s. The range between the two boarders are the so-called welding parameter window.
Today, weldments will be tested for a welding procedure qualification test (WPQT) in accordance to a fixed procedure of the codes. The mechanical tests and its location do not take the welding parameters into account - means test location are not necessarily in areas of the most stringent weld parameters.

A visualization of a WPQT with 100mm thickness has shown, that the areas of extreme high cooling times haven´t been covered by the cvn test specimen and hardness imprints. It can be assumed, that at these locations the weld reliability is not given and that these areas have a reduced crack arrest resistance.

The most important preventive action to avoid such behavior is to put more attention to the applied welding parameter window and/or use a more resilient alloying system. Vallourec developed a bainitic X100 which allows a wider welding parameter range by overmatching the minimum requirements by class. This alloy with the brand name SuperOceanFIT is approved by ABS (EQ70) and DNV (NV EO690QT) and even down to -60°C (NV FO690QT).

Jacking Solutions

The goal of our presentation was to show that the jacking system can deeply impact, in term of cost and duration, a reactivation project. The owners don't always realize how deeply the condition of the jacking system may impact their project.

On several recent cases, we have inspected jacking systems (supposed to be well maintained) and we have discovered damaged equipment's (mechanical or electrical). Such damages require urgent replacement and are postponing the availability of the rigs.

The industry is facing a shortage of spare parts due to the worldwide uncertainties. Some parts have a lead time of 5 to 10 months. In the meantime, prices are also very high.

Availability of parts and prices are directly affecting the project. This needs to be considered when starting a reactivation project.

Extended Reality (XR) technology is becoming common place in the Oil&Gas(O&G) Industry as it helps to visualize 3D simulations of real-world objects. Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR) together are combined with video and images to create XR. These enable O&G Companies to train workers for on-field equipment in a simulated environment to build their situational awareness and to enable them to interact with their assets like never before.
ZXR Technology is created in 3 similar but independent services:

ZXR-Marketing (ZXR-M): Virtual Capture of Vessels, Systems and Structures with high qualityphoto-realistic capability. Ideally suited for those that need a high degree of Visual Quality. This can be for training, as well as, for Sales and Marketing.

ZXR-Engineering (ZXR-E): Terrestrial Laser Capture of Vessels, Systems and Structures with very high accuracy(+/-1-2mm). Ideally suited for Architects, Engineers, Designers, and those that need a great deal of accuracy and the ability to easily alter, add, delete,and change spaces.

ZXR-Inspection (ZXR-I): UAV Capture of Vessels, Systems and Structures that are in ConfinedSpaces,"DifficulttoReach"and/orinacompletelydark/nolightspace.Ideallysuitedforcompanies that are looking for a fast VBI of tanks, chimneys, stacks and other difficult to reachareas.ZXR-I creates photos, video and a LIDAR 3Dpoint cloud.
Under the "umbrella" of ZXR, comes additional resources for Training and Forensic Analysis. Integrated virtual reality concepts, the ability to have unmanned vessels with gauges and controls through augmented reality and even in depth inspection of leg structures, derrick sand the like.

It is through these technologies that Zentech, armed with its ZXR technologies, can save life, time, money and more. Life Safety is priority one; all while maintaining a low carbon footprint and ensuring the survivability of not only our industry, but our world. Thank you for the opportunity to present at the 10th OJME Conference.

ABS

Improving Operational Efficiency on Self-Elevating Units - A Class Perspective

A. ABS is always keen to the client's interest of operations.

ABS is aware of Clients' interest on all their offshore units to remain classed all the time by classification societies.

To respond such client's interest, ABS continually endeavors to improve client's operational efficiency on self-elevating units through development of survey techniques and policy.

Among those techniques and policy, I would like to introduce a few major activities that are currently implemented to surveys.

All Self Elevating Units are required to remain classed for entire life while Units are actively engaged into operations.

The method to remain classed is a periodical survey as named survey after construction by Classification Society where a Unit is classed.

Here I would like to introduce the overall scope of SURVEY AFTER CONSTRUCTION.

Further, I would like to touch two key factors that ABS is continually making efforts to provide clients with an enhanced survey method to increase operational efficiency while units are under survey.

The one is regarding Survey Planning Documents and the other is Remote survey.

B. There are Two main objectives of Survey After Construction.

The one is to make Units operable through a Life Cycle Approach to maintenance of units as survey after construction are ongoing throughout entire life of units.

The other is to signify the units are complying with all relevant and applicable Rules and Guide of ABS and further complying with Statutory requirements of various IMO Conventions and Flag States.

In general, there is two main types of survey.

First, Periodical Survey which consists of Annual Survey, Drydocking or UWILD Surveys and Special Survey.

Second, Occasional surveys such as damage survey, extension survey, compliance of COC survey and etc which take place out of periodical survey cycle.

C. Among periodical surveys, the most time-consuming extensive ones are Drydocking/ UWILD and Special Surveys Hull.

The keys to success of on time and most effective completion of surveys are survey preparations in advance to be made through mutual efforts by surveyor and owner.

Based upon ABS' long standing survey experience, we noted that the critical path for on time completion of Special and Drydocking/UWILD survey is information on the structural condition and possibility of structural assessment resulted from the changes or modification of Structure at the time of survey.

To enhance process of Special & Drydocking/ UWILD surveys in terms of Improving Operational Efficiency on Self-Elevating Units and at the same time full compliance of Requirements of Class Rules and Statutory, ABS implemented the most optimized policy for survey planning and preparation to be made in advance. That is Survey planning document which need to be agreed upon between Owner and Surveyor prior to attendance.

D. While ABS has been positively engaged with Operational Efficiency on Self-Elevating Units through Survey Planning Documents on Special and Drydocking/UWILD surveys, ABS also come up with value adding solution for Annual and Occasional Surveys by implementing Remote Surveys.

The Remote surveys covers more frequently occurring surveys than Special & Drydocking/ UWILD surveys so that owner may have wider option to complete surveys with less timing and cost to maintain class.

The ABS continually develops Guidance for Remote Inspection Technologies for cost saving and safety improvement.

E. ABS issued the latest Guidance Notes on The Use of Remote Inspection Technologies, May 2022.

There are different remote inspection technologies (RITs) that can assist the attending Surveyor in evaluating a structure's condition.
These RITs may be installed on remote inspection vehicles or robotic arms.

Vehicles and robotic arms allow for collecting digital data to support an assessment of the structure's condition and identify anomalies.
This data may include photos, videos, light detection and range (LiDAR) data, and other NDE data.

The remote inspection vehicle (RIV) is a remotely controlled vehicle operating in the air, underwater, or on structures.

ABS is continually improving survey process and creating a new technology for survey technique to improve operational efficiency of Jack up units.

Constellation Cyber Consultancy

The focus of the presentation was the recognition of Cyber vulnerability and the link to our businesses and reputation. We all want our businesses to be well known and recognized; and negativity of any sort, especially the kind associated with a Cyber breach to be avoided at all costs.

The Maritime risk landscape is unique and cyber presents specialized challenges. The last two years has seen a shift from targeting large companies, back to consumers, primarily driven by pandemic remote working. Criminals are targeting the path of least resistance into a company's network, those who work (and connect) from home networks.

Any risk that a company takes can damage brand loyalty.

- Customer service failures
- Environmental impact
- Cyber related incidents

70% of those surveyed would stop doing business with a company that had experienced a data breach.

It takes 20 years to build a reputation and 5 minutes to ruin it. If you think about that, you'll do things differently–Warren Buffet

We briefly discussed a well-known breach, the Target chain in the US.

Their main error was delayed announcement to customers. It took a few years for customers to return to them.

Precautions

- Improve Password Security
- Password strength is the first line of defense against a variety of attacks
- Update Device Software
- Installing the latest updates will make your devices less vulnerable to attacks.
- Download Carefully
- Avoid unnecessary downloads to lower your device susceptibility from malware.
- Monitor for Data Leaks
- Data breach monitoring tools actively monitor and alert you of suspicious activity.

Friede & Goldman, Ltd

Friede & Goldman was founded in 1949. Our legacy is in offshore drilling. With the likes of the Leonard Glade drilling in the swamps of Louisiana providing mobility not seen with fixed platforms, and as the offshore industry went from swamps to bays to oceans Friede & Goldman delivered solutions to help pioneer the industry.

Within the past few years, we have expanded our design portfolio to include Wind Turbine Installation Vessels and floating installations.

There's been a total of 282 rigs and vessels built to Friede & Goldman designs at over 30 shipyards in 20 countries – 127 of those rigs were jackup drilling rigs.

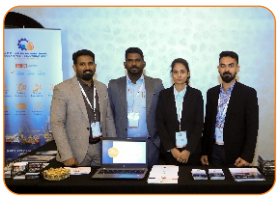
There are challenges in the Offshore Wind industry, especially the US market. The federal government has set a wind power generation goal of 30GW by 2030 but there are no WTIV's available to install turbines because they must be Jones Act compliant. There is only 1 Jones Act compliant WTIVI being built in the Texas, and there are limited shipyards in the US capable of building WTIV's.

Given these challenges the preferred industry solution is feedering instead of building expensive WTIV's. Feedering uses a Jones Act oceangoing barge to transport components from port to installation vessel. One of the biggest issues with feedering is relative motions. Using our expertise in cantilevered jackup technology from drilling rig design, we developed the BargeRack to eliminate relative motions and offer the most cost-effective solution to help accelerate wind farm development in the US.

The BargeRack is a removable L-shaped truss at the stern of the WTIV. The barge is towed to the WTIV, positioned & secured to the BargeRack, then the WTIV jacks up out of the water with the loaded BargeRack – completely eliminating relative motions. The turbine installation is now a routine fixed lift (preferred by OEMs). When turbine installation is complete, the WTIV jacks down, the barge is released and towed out, the BargeRack is stowed and the WTIV moves to the next location. There can be 2 feeder barges feeding the installation vessel to streamline and optimize operations.

There are several advantages compared to other solutions. 1. We completely eliminate motions which make for a fixed lift, time waiting on weather is reduced, and no expensive motion compensation systems are needed. 2. CAPEX is significantly reduced because the WTIV does not need to be built in the US (very expensive) to comply with Jones Act, only the feeder barge is Jones Act. There are US oceangoing barges available. 3. More cost effective compared to motion compensating deck transport vessels, customized self-elevating transport vessels, and all other solutions currently in the market.

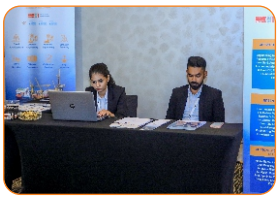
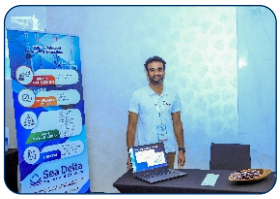
Exhibition @ OJME 2022









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