Subsea UK and Umbilical Manufacturers Federation Conference

Chester Hotel
59-63 Queen’s Road
Aberdeen
AB15 4YP
20th - 21st November 2019
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18:00 – 20:00   Networking Reception at The Chester Hotel

21st November 2019

09:00   Welcome from organisers – Subsea UK and UMF

Neil initially studied business in Aberdeen then trained as a commercial diver spending eight years carrying out numerous diving assignments in the UK and Norwegian waters involving new construction projects, pipeline surveys, welding and inspection. He has over 25 years’ management experience in director and business development roles, combined with over 15 years in the subsea industry.

Prior to joining Subsea UK, he spent four years managing the National Hyperbaric Centre which included project-managing saturation diving operations and hyperbaric weld trials. He more recently developed the subsea safety training and consultancy aspect of the business, where he regularly lectured to subsea engineers and delivered a range of training courses both in the UK and overseas.

He has experience working in India, Middle-east, Africa and Brazil and has worked with the Oil and Gas Producers diving operations sub-committee on client representative training and competency for subsea projects. He was also an active member of the IMCA diving safety, medical, technical and training committee.

Jørgen started his career in the automotive industry as a design engineer. In 2001 he moved subsea joining Aker Kværner as project engineer in the Umbilical business area. Later he worked for DNV with 3rd party services for the Umbilical industry and he was also part of the team coordinating the JIP that led to the update of ISO 13628-5. Then he joined Aker Solutions in 2007 as manager for project engineering, and since that been in various engineering and technical management positions. Today he is Aker Solutions 1st Chief Engineer for Umbilical Systems.

09:10   Safety Moment

Paul Tranter, JDR Cable Systems

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First session – chaired by Neil Gordon, CEO, Subsea UK

09:15  Look back and forge ahead – Umbilical Manufacturer’s Federation

This presentation seeks to explain the history and forward vision of the Umbilical Manufacturers Federation (UMF) as we must improve the general understanding, awareness and integration of the UMF within the offshore Industry. It also explains why the UMF originated, how it was formed, its structure, governance and controls including the high-level objectives and ethos of the group.

We discuss the challenges faced, the benefits to the industry and the achievements to date.

We explain how we address umbilical safety, how we support the industry in terms of guidance and direction, how we improve the buyers and installers experiences and how we have improved reliability and reduced failures.

Closing with a look into the Industry’s future of what can be done in terms of direction, objectives and possible achievements through UMF support.

*Fraser is a Professional Mechanical Engineer with a background in technology and product development.*

*Over the last 30 years, working in Oceaneering, designing processes, plant, equipment, products and technology for the offshore umbilical industry.*

*A long standing UMF secretariat member.*

*Previously worked in electronics industry for 10 years designing and developing sensors/transducers for military and automotive applications.*

09:35  Safety considerations in Umbilical Manufacturing

Paul Tranter, JDR Cable Systems

09:55  Steel Tube Umbilical projects – Deepwater Challenges

The presentation will discuss challenges related to functional requirements for umbilicals to be installed and operated in deep water. Installation challenges related to top tension, size and weight of end terminations and load transfer through tensioners.

*Lars Mehus*  
*Chief Engineer*  
*Aker Solutions*
IWOCS umbilicals – current challenges

Workover control umbilicals, over the last few years, have increased in length and in many cases diameter. As the umbilicals are longer the reeler package footprint has increased requiring a deployment vessel with considerable free deck space to hold the reeler, control cabin, HPU and deck jumpers. These worker control umbilicals must be reliable to minimise downtime and hence operational costs. The majority of customer purchasing specifications for workover umbilicals reference the ISO 13628-7 Completion/workover riser systems standard which in turn references the ISO 13628-5 Subsea umbilicals standard. This presentation draws attention to the limitations of using this standard, which is more suited to production control umbilical manufacture, for specifying the manufacture and qualification of workover umbilicals. The presentation suggests that the qualification testing for workover control umbilicals should be more clearly defined to more closely represent the in-service conditions experienced by the umbilical.

Patrick Kearney has been designing dynamic cables and umbilicals for more than 30 years. He leads the design department at Fibron, a specialist manufacturer of dynamic subsea cables and umbilicals. Patrick started his career in 1987 with JDR as a graduate engineer rising to the position of Technical Director in 1988. In 2008 he left JDR to take up the position of Technical Director with Fibron. His design experience encompasses all types of subsea cables/umbilicals and their associated terminations including high pressure thermoplastic hoses, remotely operated cables (main lift and tether), main and excursion diving umbilicals, workover control umbilicals, production control umbilicals (thermoplastic and steel tube) and high voltage power cables. He is actively involved in developing the design team and the umbilical testing facilities at Fibron.

UMF – Associate Membership

UMF promotes the benefits of umbilical products for the offshore oil and gas industry and safety.

For the first 18 years of existence, membership was exclusive to companies that manufacture umbilical products. UMF is now delighted to offer Associate Membership to stakeholders throughout the industry. Whether your business is an international operating company or an SME producing umbilical components or services, UMF welcomes appropriate applications for Associate Membership.

This session will cover the advantages of Associate membership. One such benefit is the ability to shape the future of the industry through Special Interest Groups (SIGs) and Joint Industry Projects (JIPs). Additional benefits include conference events, access to the member directory, valuable networking sessions, discounts and updates.

Details of how to apply will be covered along with conditions for membership.

Adam is a Chartered Mechanical Engineer with a background in companies supplying equipment to the Oil and Gas and Renewable Energy sectors. He works as a consultant.
for UMF assisting the Secretariat via Energy Business Catalyst. In previous recent assignments Adam has provided commercial advice to companies operating in umbilical and cable manufacture, subsea cable installation, marine services, offshore survey, control systems and high voltage test and termination operations. He has also provided due diligence services for cable projects and cable manufacturers. Previously, he was Commercial Director at JDR Cable Systems and General Manager at SPX Flow.

10:55 Q&A

11:05 Coffee Break

Second session – Chaired by Patrick Phelan, Managing Director EBC and ex-UMF chair

Patrick is an experienced business leader with 35 years in Oil & Gas and 12 years in Offshore Wind. He has been a managing director for the last 25 years, leading companies from £5m to £100m revenue, including JDR Cable Systems and Aquaterra Energy. In 2015 he founded Energy Business Catalyst, which is now a thriving management consultancy supporting the directors of companies large and small in the energy sector and beyond. He was a member of the UMF Secretariat for 10 years and was UMF chair from 2005-2008. He has been chair of East of England Energy Group since 2015.

11:25 Umbilical Life Extension – a challenge for the industry

Shell UK has an umbilical network greater than 530km across the Northern and Central areas of the North Sea with more on the horizon through new projects such as Arran, Fram and Penguins redevelopment. This umbilical network provides controls/instrumentation relating to 60-70% of Shell UK operated production, therefore plays a material role in the success of the UK business. This presentation will highlight the challenges and observations that Shell face to deliver sustainable umbilical management to maximum economic recovery from existing fields whilst looking at what future umbilical solutions would enable more efficient life extension and could segway into small pools.

I have been in Oil and Gas for 22 years, initially starting offshore in operations fulfilling roles from area technician through to the control room operator and supervisory position. I moved in to Subsea Operations as a surveillance engineer looking at the day
to day operations of various fields in the UK and in Norway in 2006 and moved up through the Subsea organisation into the Surveillance Team Lead role and currently the Subsea Maintenance Lead for UK operated facilities. I am currently responsible for the Subsea surveillance and execution activities in the UK hold Technical Authority 2 for Subsea Inspection, Maintenance and Repair. I enjoy football, golf and curling and I am married with a 5 year old daughter.

11:45  **Power Umbilicals – a look to the future**

Over the last 10-15 years multiple power umbilicals have been installed around the world. Looking forward Nexans focus on power umbilicals development will continue, both on the product, analysis and the system design. In addition, there is also a grooving need for dynamic power cables/umbilicals for the renewable industry

We see a greater/increased need for power subsea; for pumps, compression, ESP and other electrical systems. We are looking forward to larger water depths, longer step out lengths, higher voltage and both wet and dry power phase designs.

*Background from mechanical engineering. Started in the umbilical industry 21 years ago and has is this period worked for Nexans during this period. I have held multiple project engineering roles in Nexans during this period including; Accessories Design, Project Engineer, Lead Engineer, Engineering Manager. For the last 10-11 year I have had different manager roles in the company including; Head of department, Technical Director and in the last year focusing on early engagement and Technical Marketing.*

12:05  **Installation vessel umbilical handling solutions**

Installation of deepwater umbilicals has traditionally been done using vessels equipped with a vertical lay tower. The solves the issue of high friction occurring to the umbilical while passing it over a steel chute, as is done with shallow waters with low top tensions.

The presentation will explore technical developments about how deepwater umbilicals may be installed horizontally, without the need for a vertical lay tower, incurring no chute friction, and in an engineered and controlled manner. This will enable installation from a greater selection of lower cost vessels and has considerable impact on a project’s bottom line, in an era where cost management is still critical.

Further updates will include high capacity tensioner and hang of clamp innovations.

*Gavin currently works with deck equipment supplier MAATS Tech, which is the primary supplier of leading edge umbilical and cable lay equipment to newbuilding vessel ‘Nexans Aurora’, scheduled for launch in 2021. He previously worked with JDR Cables Ltd for over 12 years, and oversaw its diversification from an Oil & Gas-only supplier, to becoming a significant subsea cable provider for the offshore wind market. He holds a First Class degree in Mechanical Engineering from the University of Portsmouth.*
An operator’s view

The presentation will share an operator’s view on perspectives and trends within the subsea industry, with special focus on umbilicals.

Karl has worked within the subsea industry since 1993, primarily with subsea umbilicals & cables and related interfaces. Before joining Statoil (now Equinor) in 2002, he worked 9 years for an umbilical supplier, mostly as lead engineer within projects. The first years in Equinor were within projects, and development of requirements and standards. Following a 6 year period as leading advisor, he now works as specialist - supporting projects and operations from early phase development (concept level) to late life challenges.

Karl Atle Stenevik
Specialist Subsea
Umbilicals and Cables
Equinor ASA

Q&A

Lunch

Bend Stiffener challengers and solutions

As customers look to improve their cable, umbilical and riser offerings and the market pushes the boundaries ever further of cost, quality, time and function the need for bend protection remains. Whilst the philosophy behind how we protect these key components at their termination has remained constant the way in which we design, manufacture and install these items changes, moving to adapt to the ever more demanding needs of the industry. Here we explore some of the key themes around time, cost, safety and delivery to offer the same performance we always have yet different and improved.

Working for Trelleborg Offshore for 10 years in technical and commercial functions Josh now leads the Polyurethane Product Group for Trelleborg Offshore’s UK Oil and Gas business. Having a Masters in Mechanical Engineering Josh enjoys a combination of technical and commercial aspects and finds the offshore Oil and Gas industry a demanding but exciting place to work. Based in Trelleborg’s Skelmersdale factory Subsea Buoyancy and Polyurethanes have been the bread and butter of the work however close collaboration with the other Trelleborg Offshore entities has helped give a true appreciation of how important polymers and rubbers are to seal, damp and protect customers critical assets in the subsea industry.

Joshua Chadwick
Product Group Manager
Trelleborg Offshore
13:55  An installation company’s view

Subsea 7 is a global leader in the delivery of offshore projects and services for the evolving energy industry. A large part of the projects involves EPCI of umbilicals.

One of the challenges faced as an EPCI contractor is the manufacturers availability and capability to provide quotes. Subsea 7 is interested in supporting the manufacturers in development of new capabilities and also efficient ways of design and manufacture of umbilicals.

Other EPCI challenges are related to pushing efficient ways of working between all parties involved in the umbilical delivery, including the client, sub-suppliers and 3rd parties. Key elements are to minimize the number of project specific documents and the level of inspection during manufacture. We also believe in the building of trust and alignment between the parties involved and the importance of openness for maintaining trust in the long term.

_Eskil Høyvik, MSc Marine Technology from NTNU in Trondheim, is managing the Flexibles an Umbilicals Discipline In Stavanger and Aberdeen, with 20+ engineers working with the technical follow-up of umbilicals, flexibles, riser systems, control systems and cables. He has 12 years’ experience from Subsea 7, mainly working with subcontractor follow-up and installation of flexible pipes and risers, umbilicals and cables._

14:15  Q&A and concluding remarks

_Neil Gordon, CEO, Subsea UK and Patrick Phelan, Managing Director, Energy Business Catalyst Limited_

14:25  Meeting Close