# North of England Evening Meeting High Performance Offshore Systems Wednesday 13<sup>th</sup> March 2019

Registration & Refreshments 6.00pm, Room ARMB1.48 Presentations 6.30pm, Room ARMB1.49 – Newcastle University, Armstrong Building, Newcastle upon Tyne, NE1 7RU

#### **Royal IHC Compact J-Lay System**

### Tom Blanchford – Royal IHC Limited

Royal IHC's compact J-Lay system has been developed to overcome the challenges of packaging a highly competitive J-Lay system within the constraints of an existing vessel designed to accommodate a lower-capacity system. The key innovation described is the multistroke travelling friction clamp. Conventionally pipe joints (in multiples of 12m lengths) are lowered in a single stroke by a travelling friction clamp from within the tower, whereas Royal IHC's tower lowers the joint in a series of passes. This allows a 72m (hex) joint to be deployed from a tower with a mass profile similar to a quad joint system, permitting high lay rates whilst minimising the impact of the mission equipment vessel stability. Crucially for the performance of the system, this allows high lay tensions and payloads to be maintained from the smaller vessel. Collaboration with the operators to maximise performance whilst dealing with restrictions of the existing vessel is also addressed.

## High Temperature Subsea Umbilicals

#### Jamie Fletcher-Woods – TechnipFMC Umbilicals

The umbilical is the connection that provides control for subsea infrastructure across oil and gas fields. It uses a range of components such as fibre optics, steel tubes, hoses and electrical cables to achieve this objective. The requirement for the umbilical to transport hot fluids and large amounts of electricity presents a unique challenge for the umbilical designer. A high temperature umbilical may not seem a significant design challenge with maximum temperatures rarely exceeding 100°C. However the umbilical is a long length product being sold into an increasingly competitive market, therefore our standard umbilical design is rarely suitable for operating temperatures over 60°C. TechnipFMC now has the knowledge and systems in place to design a high temperature umbilical and manage the challenges it presents. A review of the work that has gone into selecting, developing and qualifying some of these technologies will be presented. The main focus will be on high temperature steel tube dynamic umbilicals.



#### **Registration Fees**

SUT Members: £5 Non-Members: £7.50 Student Members: FREE Payment online at *www.sut.org/events* 

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