

Forum's Dual-Umbilical Insert Bowl Helps Prevent Damage to Critical Control Line Components, While Ensuring Compliance

The Challenge

In offshore drilling applications, operators are often required to run one or more control lines from the rig floor to subsea equipment through well center. Protecting the outer surface of control lines is essential since the drilling vessel is moving while operations are underway, and the lines are sensitive and costly if damaged.

In addition to this requirement, an oilfield rental company needed load-rated tubular handling equipment that was compliant with the newly released American Petroleum Institute (API) 7K, 6th edition requirements. Ideally, they wanted an offering that included full-slip taper support, and the ability to quickly install and remove it from the master bushing during drilling operations.

After trying several options, the customer contacted the Forum Energy Technologies' handling tools group to design and manufacture this equipment because of their API 7K 6th edition compliance readiness and reputation for providing innovative, efficient solutions and technologies, in a timely manner, and at an affordable price.

The Solution

Once the challenges and requirements were verified and reviewed with the customer, the Forum drilling team proposed a functional solution that was fully compatible with the customer's existing handling tools.

A Forum modified insert bowl, which included two umbilical slots that would protect the sensitive control lines run through well center, was approved by the customer. The slots in the dual-umbilical #3 insert bowl were specifically designed for use with a standard rotary slip, and were strategically positioned to help ensure that the slip backs remained fully supported. This solution was also designed and tested to meet the new API 7K 6th edition requirements, with a load rating of 500 tons.

The modified insert bowl envelope maintained the required profile for full compatibility with the existing master bushings already in use by the customer. The bowl design helped reduce downtime during drilling operations by allowing fast and easy installation and removal.



The Benefit

Forum's dual-umbilical #3 insert bowl helped their client improve efficiency by successfully protecting sensitive control lines and equipment, and reducing the possibility of damage due to rig motion inherent to drillship operations. The ability to quickly and easily replace this mission-critical split insert bowl allows the customer to decrease downtime and cost when control lines are required with pipe in the hole during drilling operations.

The use of Forum's insert bowl, which is made of a high-strength alloy steel forging, provides increased durability and longevity. It consists of the most commonly required profile; thus, making this solution vastly compatible with most operational master bushings in the offshore market.