

Forum B+V Bushing-Type VES-CL Elevator Provides Improved Efficiency and Longer Product Lifecycle

The Challenge

In most drilling operations, a minimum of three or four drillpipe sizes are required to complete the hole, which can mean changing out center-latch drillpipe elevators multiple times. Exchanging this equipment throughout the drilling process can increase downtime and health, safety and environmental (HSE) risks to personnel, while reducing drilling efficiencies.

Drilling contractors have traditionally been expected to have various elevators, for each drillpipe size, in inventory on the rig. This can increase expenses, both for the initial equipment costs and consumable costs associated with repair and maintenance, and take up valuable space on the rig.

In an effort to provide a cost-effective alternative to handling pipe and continue offering low day rates for their jackup rigs, an offshore drilling contractor contacted Forum Energy Technologies because of their reputation for providing a comprehensive portfolio of innovative, efficient and safe pipe handling technology.

The Solution

After reviewing the customer's challenges and requirements, the Forum team recommended its patented B+V bushing-type VES-CL variable elevator system, which allows an operator to use different drillpipe sizes with the same elevator by only changing out the inserts (e.g., drillpipe sizes of 2 3/8 to 7 in. can be accommodated in a single system).

The VES-CL 350-ton elevator can replace up to five drillpipe elevators and the bushings can be used for drillpipe elevators from 150 to 1,000 tons for manual, air-operated, and hydraulic-type elevators. The same bushings can be used for multiple elevators (150/250, 350/500, 750/850) if the customer wanted to use them on other Forum VES-CL systems.

By using one elevator and multiple bushings, the drilling contractor was able to help reduce downtime—the minimum time to change elevators has historically been 30 minutes. The wear and tear on the elevator is lessened since it is protected by the bushings; thus, extending the life of the system. No forklift or extra equipment is needed since even the largest bushing can be carried by one person without causing back injuries.



Same as five conventional center-latch drillpipe elevators

The Benefit

The Forum B+V VES-CL elevator system allowed the drilling contractor to pass along decreased downtime and increased drilling efficiency to their customers since the bushings can be changed within a couple of minutes without taking the elevator out of the links (bails). The system has also helped reduce HSE risks because elevators do not need to be moved for changing purposes and the bushings can be easily replaced without heavy equipment.

Since only one VES-CL elevator is needed versus one to five different sizes, the customer was able to save space and reduce the amount of equipment on the rig floor. Over the lifetime of the elevator, less spare parts are required compared to conventional drillpipe elevators; thus, saving money, space for parts inventory and safety issues.

The customer was extremely happy with the system and provided the following feedback, "Good quality, were supplied in a timely manner and are performing well. Handle many different pipe sizes with a single elevator body by changing only the bushing (insert)." Over the years, they have continued putting the system on almost all of their operating offshore rig fleet.