Mechanized Technologies Streamline Tubular Handling in Deepwater Exploration Well To Save Nearly $7 Million

Objectives

- Improve overall tubular handling and performance of six wells on a deepwater semisubmersible rig in offshore Australia.
- Reduce operational costs by enhancing efficiency and safety.

Results

- Weatherford tubular running services installed a hydraulic makeup/breakout unit (HMBU) on the pipe deck for offline makeup and breakout of subassemblies.
- Preparation procedures, such as cleaning, strapping, and drifting services, were completed onshore. This improved efficiency, reduced the manual handling of tubulars, minimized the risks related to managing casing on a mobile offshore drilling unit with limited deck space, and eliminated the need for rig personnel to work at heights while casing was stacked.
- Weatherford deployed the TorkWrench™ drillpipe tong and integrated it with the current PowerFrame® III tong-positioning system on the rig floor. The system used modular casing, tubular, and drillpipe units to switch from drilling to casing operations quickly and easily.
- This integrated, mechanized solution substantially decreased the number of potential injuries and removed personnel from hazardous areas on the rig floor.

Value to Client

- The HMBU improved makeup and breakout performance with the offline assembly and disassembly of subassemblies. This capability enhanced operational efficiency and safety while minimizing nonproductive time.
- The TorkWrench tong and PowerFrame system enabled the operator to safely and efficiently switch between drilling and casing operations.
- Tubular running services personnel and equipment saved the client approximately US $7 million in operating costs by streamlining tubular handling and enhancing safety.