

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



Using the HMBU for the offline assembly and disassembly of subassemblies streamlines primary drilling operations, improves productivity, and reduces service breaks on the rig floor.

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.



LOCATION

Australia

WELL TYPE

Offshore, deepwater, exploration

HOLE SIZE

8-5/8 to 36 in. (219 to 914 mm)

CASING

- 4 1/2-in. PH6
- 7-in. PH6
- 9 5/8-in. PH6
- 13 3/8-in. PH6

DRILLPIPE SIZE

5 7/8-in. XT 57 with optimum torque of 56,000 ft/lb (75,926 N·m)

PRODUCTS/SERVICES

- Tubular running services
- PowerFrame tong-positioning system
- TorkWrench drillpipe tong
- HMBU

