

Expro Excellence

Expro delivers offshore excellence: safety, speed and savings with Blackhawk Cement Head

Well Construction | Cementing Technologies



Objectives and background

- Cement head management:**
 - The customer was required to demobilize the cement head after every job for onshore inspection and redressing, resulting in operational inefficiencies
 - During previous campaigns, residual cement debris was repeatedly found inside the cement head, rendering it unfit for immediate reuse and contributing to project delays
- Dart reloading capability:**
 - The customer needed a cement head design that allowed darts to be reloaded on location without removing pup joints, enabling faster, safer job preparation
 - In an earlier operation, the cement head became detached when the rig inverted it to break out the upper pup joint, causing one full day of non-productive time (NPT)
- Safety improvements:**
 - A key customer priority was to reduce personnel exposure within the Red Zone by adopting equipment and processes that enhanced operational safety

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- Enhanced Safety:**
 - The Blackhawk Cement Head with Skyhook system removes the need for personnel to enter the Red Zone at any stage of the cementing operation
 - By integrating hands free handling and controlled tool positioning, Expro's solution significantly reduced physical exposure and improved overall operational safety
- Improved Operational Efficiency:**
 - The proprietary QuikLock™ connection, which is included on all of Expro's Blackhawk Gen-II & Gen-III cement heads enabled, fast, on location dart reloading without having to break out pup joints
 - This streamlined process reduces rig floor activity, shortened job preparation time, and enhances both safety and workflow efficiency
- Reliable Internal Cleaning:**
 - Our purpose built cage design ensured continuous mud flushing through the cement head's internal diameter
 - This eliminated the need to stop circulation to clear bypass channels - an issue common with previous cement head designs - ensuring reliable, repeatable performance across runs
- Reduced Logistics & Cost Savings:**
 - Expro's cement head was designed to remain offshore between jobs, eliminating the requirement for onshore redress or cleaning
 - This reduces logistics handling, minimizes vessel movements, and lowers both planning and operational costs for the customer

Value to the client

- Faster preparation for subsequent operations:**
 - Our solution saved 2 hours on cement head preparation for each job
 - We had no requirement to invert the cement head to break out pup joints, reducing operational steps and simplifying the workflow
 - Minimized the risk of damage to rig equipment and removed unnecessary personnel exposure on the rig floor
- Reduced cement line handing:**
 - Expro's Skyhook system enabled rapid connection and disconnection of cement lines, saving around 1.5 hours per operation
 - Workflow becomes significantly more streamlined, reducing manual handling and improving efficiency
- Enhanced personnel safety:**
 - Cementing operations could be completed with personnel fully removed from the Red Zone, supporting the highest safety standards
 - We eliminated the need for man riding activities, significantly decreasing the likelihood of safety incidents

Safety



Red zone elimination

