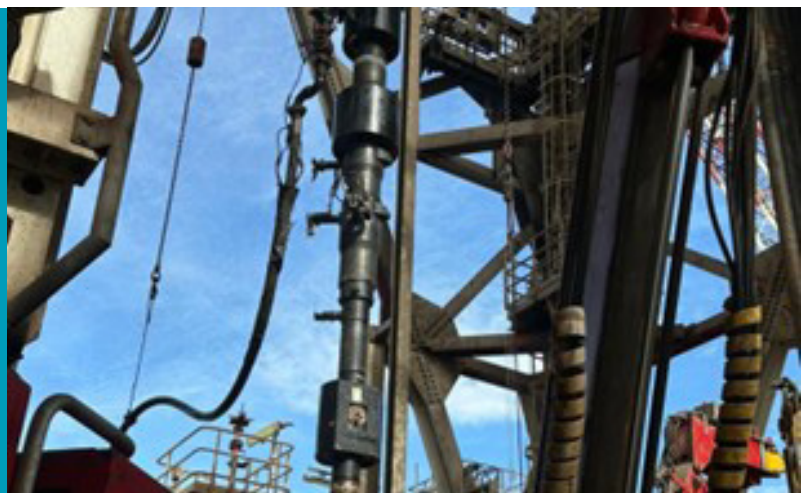


## Expro Excellence

# 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 fully 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

### Expro Excellence

- **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 handling:**
  - 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

