



Case study: Tornar BOP Cleaner

Effective well clean up for Statoil on Statjford A

Challenge

A milling operation in 9-5/8" casing on Stafjord A prompted the operator to carry out well cleaning procedures followed by a blow out preventer (BOP) performance test.

Debris management is a serious oilfield challenge, and is responsible for many of the operational difficulties and costs of maintaining wells and well systems. Milling operations generate an abundance of metallic junk and other particles that can seriously hinder the correct operation of the BOP, with potentially hazardous consequences to people, the environment and surface assets.

Cleaning debris from BOP cavities is especially challenging, since traditional cleaning methods can sometimes force debris further in to the BOP workings, rather than removing it. It is also important that such operations are performed safely and efficiently.



Region: North Sea, Norway

Field: Statjford

Well type: Oil & Gas

Case benefits

- Highly effective and rapid well cleaning
- Avoidance of junk-induced damage to BOP
- Reduced future BOP maintenance
- Successful BOP performance test
- Reduced down-time

Key capabilities

- High flow rate Tornar ports
- Easily configure to suit BOP requirements
- Standard drill pipe connection
- One-piece mandrel
- Non-rotating stabilizer and magnet
- Up to 150 rpm rotation
- Powerful industrial magnets

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Solution

Designed to remove debris from BOP's safely, rapidly and reliably, Archer's Tornar BOP Cleaner combines proprietary Tornar flow ports with a powerful industrial magnet to ensure the maximum extraction of harmful debris from the well.

The Tornar flow ports positioned within the large body stabilizer create a high-rate drilling fluid cyclone even at low pump rates. The differential pressure caused by the cyclone generates a powerful suction effect, which extracts any accumulated debris from the BOP and retains it in the drilling fluid – just like a vacuum cleaner. And powerful 13-3/8 inch industrial magnets incorporated within the cleaning string improve the overall efficiency of the cleaner by ensuring the effective and complete retrieval of metallic debris from the BOP and its surrounding area.

Results

The Tornar BOP Cleaner proved to be a highly effective solution for the task at hand. Several large items of sharp steel debris measuring from 10cm x 20cm to 20cm x 30cm were recovered from the well.

If the BOP test had been conducted with this amount of debris in the well, it may have been unsuccessful at best, and at worst may have resulted in permanent damage to the BOP.

Upon final inspection, the BOP was found to be completely free of debris following the cleaning operation.



Several large items of sharp steel debris measuring up to 20cm x 30cm were recovered by the Tornar BOP Cleaner. This amount and size of debris could have resulted in permanent damage to the BOP if it had not been removed.



BOP cavity free from metal debris.



We are a global oilfield service company that specializes in drilling services and well services because we believe that specialists do the job best. Our experience drives our difference in a constant search for new ways to deliver better wells. We listen to our customers to provide straightforward solutions to help them produce more oil and gas. We are craftsmen, who take pride in our work and always do what we promise.

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