HOT BOLT CLAMP

Challenge

Corroded studbolts on four bolt flanges can lead to uncontrolled pressure releases which pose a significant integrity issue on producing assets. A major operator in the Gulf of Mexico contacted Stork after identifying that flanges on menthol and portable water systems were suffering corrosion due to the surrounding marine environmental conditions.

The operator required the systems to remain live meaning that they could not be reworked using conventional techniques which require the systems to be fully isolated and depressurised.

Solution

Stork's Hot Bolt Clamp technology enables the safe removal and replacement of corroded bolts on live four bolt flanged connections with no disruption to ongoing production.

Stork mobilised a Stork HBC Surveyor to the platform and acceptable flanges were identified on the methanol and potable water systems that met the minimum requirements needed to perform Hot Bolt Clamp execution.

Using Stork's patented technology, the affected bolts were quickly and safely replaced to fully restore bolt mechanical integrity.



Technical Specs

- Region: Americas, Gulf of Mexico
- Business lines provided:
 Machining & Bolting, Hot Bolt
 Clamp, Special Access Systems,
- Execution time: August 2014, 17 days
- Contact at Stork: Jeremy Wilks, jeremy.wilks@stork.com

Result & Benefits

Stork's HBC team replaced the bolts in 17 flanges in eight days utilising both deck access and rope access with a 100% success rate. Full bolt mechanical integrity was restored quickly and safely without interruption to the processes.

This reduced risk, helped assure integrity and improved the safety environment on an asset, while simultaneously reducing operating costs and optimising productivity.

The workscope was completed on time, within budget with no safety or environmental incidents.

