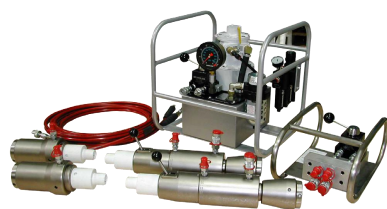
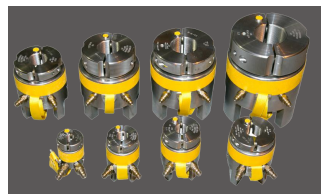


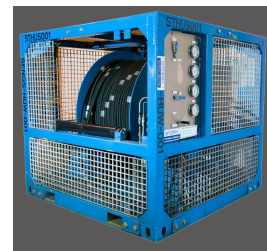
# 7. 组合工具

(海底维修法兰/螺栓/螺母工具)



# 8. 液压工具

HYDRAULIC



# LATROLET PENETRATION

## 应用案例: 现场加工和螺 栓服务

- 海洋平台斜管架穿  
透解决创新方案

### Workscope

Stork was contracted to provide in-situ machining and bolting services during the upgrade and modification of an offshore installation.

The client required an 8" Latrolet Penetration to be cut into a 12" heavy wall main line at a 60° angle in a very restricted access location. Established traditional techniques for performing a latrolet penetration were unsuitable for the application.

An alternative innovative solution was required to be developed in a very short timeframe to undertake the angled tapping operation.

### Solution

A specific machining procedure was developed and equipment was

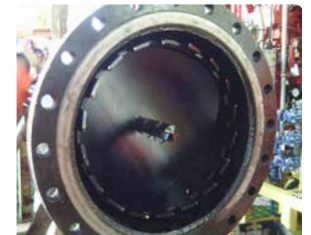
customised to undertake the operation.

Witness trials were conducted at our Aberdeen base facility to prove the suitability of the machinery and procedure, prior to the machine being mobilised 2 weeks following initial client contact.

Stork's existing multi-skilled team of technicians on the asset were used. Stork successfully undertook the latrolet penetration, retaining the coupon with no disruption to the ongoing production or the plant.

### Results & Benefits

- The shutdown / construction scopes (including the additional Latrolet penetration) were completed three full days ahead of scheduled completion date, with no safety issues or concerns raised throughout the extensive project.
- Ease of scope review / order placement with all ancillary services being offered via single provider
- Due to multi-skilled technicians being used personnel numbers, associated cost and bedding space were reduced
- Pre-engineering of scopes eliminated all potential issues and delays, aiding in the timely delivery of the complete project ahead of schedule and below budget.
- Robust procedures and risk assessments ensured all works were undertaken safely with no incidents or injury



# IN-SITU MACHINING

## 应用案例: 现场机械 加工服务

(工作于北海平  
台上的受限空间)

### Workscope

Stork was contracted to provide a solution in the removal of a **seized rig skidding actuator's clevis pin** on an offshore platform.

Due to access restriction and being located in a zone one environment, machining options were limited.

### Solution

Comprehensive method statement with supporting procedures and risk assessments were provided to the client for review and approval ahead of mobilisation.

### Innovation

Stork designed and custom made a mounting plate to safely and accurately secure and centralize the machine for the execution of the job

Use of state-of-the-art drilling technology allowed the execution to be completed in a single set up resulting in minimal down time

### Results & Benefits

- Clevis pin removal was completed ahead of schedule and without incident
- Enhanced pneumatic drive replaced the use of a hydraulic power pack allowing the machine to be safely used in a zone one environment

