CASE STUDY

Replacement of draw works brake cooling unit

ASSET Offshore platform
LOCATION UK

Full project management of your mechanical handling requirements ensures your critical equipment is changed out efficiently and safely

BENEFITS

Bespoke design solution to optimise efficiency

Safe solution ensuring compliance with standards

Full project management to ensure a smooth delivery

CHALLENGE

With the life of the platform being extended to approximately 2030 from its original design life of 25 years when built in 1983, our customer required support to ensure they could safely and reliably continue to drill new wells.

In support of the overall project strategy and to comply with updates to governing our customer's technical practices for well control, we were contracted to manage the replacement of some of their critical drilling equipment, including replacement of the draw works brake cooling unit.

SOLUTION

- We undertook a comprehensive survey to determine the most suitable methodology for the change out of the draw works brake cooling unit on the platform and we discovered that the location of the unit meant that limited conceptual options could be considered.
- The unit was located underneath a stairwell with little access to the primary steel overhead so it was impossible to lift the Draw Works Brake Cooling Unit (DWBCU) directly in to the area. Additionally, it was located on a plinth in its final installation position so it was not possible to pull the new unit across the deck as it would have required to be lifted / jacked into its final installation position. Thus it was determined that skidding the unit in to location was the best feasible option.
- During the initial phase of the job we designed and created the lifting aids, skid track and lifting plans which were utilised for the changeout of the unit. Although utilising jacks complete with brackets to move the unit was identified as a safe and reliable method it would have been very time consuming (would have required the repetitive process of doing one full stroke on the hydraulic cylinders then resetting the equipment and moving them along the track to the next position).
- The existing DWBCU was disassembled in-situ.
- To speed up the process it was determined that the unit could be positioned below an overhead runway beam, where a beam trolley and chain hoist were utilised to lift and trolley the load into position above the skid track.
- The load was then lowered onto a reduced length of skid track and skidded a much shorter distance into its final position.
- This method ensured a time and cost effective methodology for moving the equipment to and from their locations minimising set up time and down time for lifting operations. This also meant a reduction in the amount of manual handling required to both install and remove the skid track and DWBCU.

SUMMARY

- Project management
- Onsite survey
- Feasibility study
- Design calculation package
- Detailed fabrication drawings
- Material sourcing
- Fabrication
- Lifting point testing and certification
- Lift plan preparation
- Supply of rigging

1.

2.

1. Skid fabrication

2. Installation of the DWBCU

Please visit **www.sparrowsgroup.com/contact** to find your nearest office

11501c34 November 2016