

Case Study

Lifting Support for Rigless Well Intervention

Thunder Cranes provided a TC20-SL portable modular crane to support a rigless well intervention requiring coiled tubing operations. The platform's 5 MT crane was insufficient for heavy CTU equipment lifts of up to 18 MT. TC20-SL was rapidly deployed, rigged up, and safely executed all heavy lifts, enabling timely, cost-effective completion and increased production without rig mobilization.

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Introduction

The client's objective was to perform a cost effective Zone Shut-Off & Additional Perforation on an offshore well to maximize oil recovery rates. This required Coiled Tubing Unit (CTU) operations.

However, the platform crane itself was only capable of lifting to 5.0 metric tons SWL with limited range and reach. The coiled tubing installation from supply vessel would involve heavy lifting of several units including the CT Power Reel weighing up to 18.0 metric tons depending on coil length and drum weight.

The accommodation workboat assigned for the project would be equipped with a crane, however the workboat crane capacity would also not be sufficient at the reach radius and hook height needed for spotting and stacking up the CT equipment.

Therefore, the client contacted Thunder Cranes for an API compliant portable-modular, offshore rental crane suitable for this project. Following the site survey and engineering study, we proposed the TC20-SL to assist with the project's lifting requirements: offloading and spotting of equipment from a supply vessel to the offshore platform, as well as lifting required for the assembly of the CTU – this included lifting of injector head assembly above Jacking Frame, which will be spotted above the wellhead.

Upon CTU perforation work completed the TC20-SL would then assist with the CTU rig-down and backloading to the supply vessel for de-mobilisation.



Offshore CTU Well Intervention Project Supported by Thunder Cranes

Application

- Lifting Solution for CTU Operations

Challenges

- Small Platform Crane
- Space Constrains
- 18 MT Heavy Lift

Our Service

- TC20-SL modular rental crane
- Crane Operators
- Detailed Planning & Preparation

Benefits

- Cost effective, precise, safe lifting solution

Location

- Malaysia

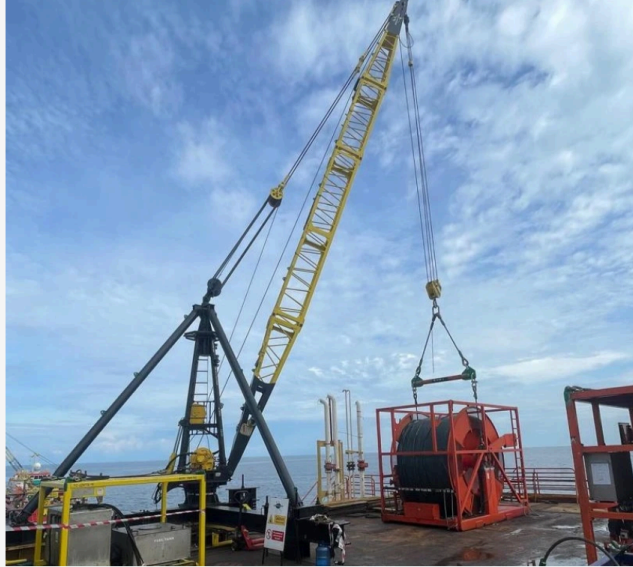
Challenges & Solutions

The Challenge

The fixed platform's existing crane had a limited capacity of 5 MT, insufficient for lifting the heavy CTU components required for this well intervention. The challenge was to mobilize and safely execute the lifting of multiple heavy loads—particularly the 18 MT coiled tubing power reel—while maintaining schedule and minimizing LCT vessel time.

Thunder Cranes Solution

Thunder Cranes deployed the TC20-SL portable modular crane, an API-compliant 20MT capacity stiffleg crane designed for temporary installation on offshore platforms.



TC20-SL Lifting the 18-ton CT Power Reel

Execution Timeline

1. The TC20-SL was transported to location via LCT vessel.
2. The platform's 5 MT crane assisted in offloading and rigging up the TC20-SL modular components.
3. TC20-SL rig up was completed within 12 working hours by Thunder Cranes' expert crew.
4. A full load test and third-party certification were performed prior to operations, ensuring compliance with API offshore lifting standards.
5. Once operational, the TC20-SL successfully lifted all CTU equipment from the LCT vessel to the platform deck and assisted with CTU assembly.
6. The workboat arrived on location to provide accommodation and additional equipment storage space.
7. CTU operations began and were completed successfully and on schedule.
8. TC20-SL assisted with disassembly and backloading of all equipment prior to demobilization.

Outcome

The TC20-SL performed all lifts safely and efficiently, including the heaviest lift of the 18 MT power reel, enabling the coiled tubing operations to commence as planned.

The project achieved a timely and cost-effective execution, with zero safety incidents, allowing the operator to complete the well intervention successfully and increase production without the need for a costly drilling rig.

Key Takeaways

- Safe and efficient lifting support for rigless well intervention.
- Reduced project cost and time versus mobilizing a drilling rig.
- Rapid deployment using modular crane design.





About Us

Thunder Cranes was founded in 1995 to service the growing need for offshore rental cranes and expert lifting solutions in the offshore oilfields of Asia. Building on a strong commitment to safety, efficiency, and customer satisfaction, Thunder Cranes has earned a global reputation as a trusted partner in the oil and gas industry.



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