

# Crane boom replacement

**CLIENT** RasGas Company Limited  
**ASSET** RasGas Alpha riser tower platform  
**LOCATION** Offshore Qatar

Custom lifting and handling solutions can prevent the need for costly equipment hire whilst allowing critical operations to continue

**BENEFITS**

- Temporary solution to allow crane operations to continue
- Project management and specialist expertise to ensure safe replacement
- Cost effective lifting and handling solution
- Recommissioning and certification to original rated capacity upon completion



**DELIVERY ASSURED**

## CHALLENGE

RasGas required to replace a damaged crane boom on their Riser Tower platform while also de-rating the existing crane to allow operations to continue while the new boom was manufactured. Live gas pipelines and plant on the platform were to remain operational during the replacement so it had to be carried out with extreme precision.

As the original crane Original Equipment Manufacturer (OEM) they contracted us to supply and install the new boom, and carry out structural repairs to the existing boom to allow for it to be de-rated.

## SOLUTION

- We supplied RasGas with a new 120-ft lattice boom and a bespoke skidding and mechanical handling solution which allowed for its safe and precise replacement.
- Taking care to ensure that the live plant and gas pipelines did not have to be shutdown we started the project by undertaking structural repairs caused by corrosion damage to the existing boom to enable the lifting capacity to be derated.
- Comprehensive procedures and work instructions were completed which included lift plans, detailed risk assessment of mechanical handling elements and plans for boundary conditions around the scaffold towers.
- We manufactured and supplied a replacement crane boom.
- To ensure safe installation of the boom, reaction forces were calculated for each individual stage of mechanical handling, custom-built scaffold towers were proof-tested to prove the design capacity and a special skidding arrangement was designed and manufactured to use alongside the scaffold towers.
- The removal of the old boom and installation and commissioning of the new boom was completed safely, without interrupting plant operations.

## SUMMARY

- Design, manufacturing and supply of new crane boom
- Equipment hire
- Design, manufacturing and supply of mechanical handling solutions
- Installation, testing and commissioning
- Lift plan preparation
- Project management
- Supply of OPITO certified riggers and a crane maintenance crew

1.



2.



3.



4.



1. Specially designed skidding arrangement
2. Sliding boom before fitting pin
3. Connecting the sections
4. Load test

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