



Location:
Mumbai High North
India

Client:
L&T Hydrocarbon
Engineering Limited

Materials:
Nax® Q140 UHPC Grout

Project date:
2016

X-BRACE STRENGTHENING OF NQD JACKET, INDIA

DISCIPLINES:

- Offshore Contracting
- Strengthening and Repair of Subsea Structures



Nautec has completed the strengthening works of jacket members and joints of the NQD Platform, which is located in ONGC's Mumbai High North at a water depth of approximately 63m. The NQD jacket repair was part of Mumbai High North Redevelopment-3 (MHNRD3) project, which was awarded to LTHE, India.

This strengthening work was a first of its kind in the Indian offshore market and Nautec is proud to have successfully completed it in less than budgeted time frame to clients' satisfaction.

SCOPE

- The scope of work for the grouting of leg-clamps, inline-clamps, X-clamps and infilled members included:
- Preparation of grouting procedure
- Supply and delivery of NaX® Q140 grout material and lubrication mix
- Provision of mixing/pumping facility and installation equipment necessary for the grouting work
- Provision of offshore grouting crew

CHALLENGES

- Designing a clamp with operational feasibility in the specified location posed a challenge



UHPC, or Ultra High Performance Concrete and Composites are our business. We develop and produce UHPC products and we offer UHPC based solutions for multiple industries including the Renewable, Civil Construction, Ports, Offshore and Energy Industries.

We have documented the technical performance of our UHPC products through a large test program at MPA (Germany) which included creep and fatigue testing and we have carried out large-scale trials at low (European conditions) and high temperatures (Tropical conditions) to demonstrate the performance of our materials under severe weather conditions.

Our NaX® Premix Grouts are a portfolio of ultra high performance concrete and composites with strength and durability 10 times better than that of ordinary cement products.

- due to low visibility and mud braces cramming the area where it was to be installed.
- The crew had little clearance to play with when fitting the clamp at the right location but Nautech's engineering team overcame the challenges and applied 3D drafting methods to recreate the area and design the clamp in a way the divers could install it correctly.

SERVICES

- Nautech was involved from start to end of this project.
- The services provided included pre-engineering survey, detail engineering, fabrication supervision, installation supervision, supply of NaX® Q140 UHPC grout and grouting of the structure.

