

NATURAL GAS EXPANSION PROJECT

A HEAVY LIFTING SOLUTION TO FAST-TRACK OFFSHORE INSTALLATION

AT A GLANCE

CLIENT	UNDISCLOSED
PROJECT	NATURAL GAS EXPANSION PROJECT
LOCATION	VICTORIA, AUSTRALIA
SECTOR	OFFSHORE
DATE	2024
CRANES	1 X M2480D



When our client, the operator of one of Australia's most strategically important offshore gas platforms, planned to expand its operations, they turned to Marr for a heavy lift solution to support their plans for the project.

The project relied on a heavy lifting solution that could install heavy modularised components. With the cranes on the platform unable to meet the required lifting capacity, our client reached out to Marr.

THE CHALLENGE

The platform's offshore location posed a number of challenges due to its exposure to the Southern Ocean including:

- Variable sea and weather conditions – potential disruption to offshore construction, maintenance, transport and logistics activities as a result of adverse weather;
- Ensuring the safety of personnel working on platforms and vessels; and

- Mitigating the high cost and associated risk with the delivery of components to the platform.

From a craneage point of view, the key challenge was to develop a solution that would reduce some of the operational risk by allowing heavy modules to be lifted from supply vessels onto the platform in varying sea conditions.

And needless to say, working on an operating offshore project inherently required an advanced level of safety and design planning.

MARR'S SOLUTION

Although the existing platform was designed to take some large operational loads including a large drill tower on the platform, it hadn't been designed to support the loads generated by the 330-tonne capacity M2480D heavy lift luffing tower crane.

This did not mean there was not a solution available to us, it just meant we had to work together to find it.

Working with our client's project team and Marr's crane manufacturer, Favelle Favco, over 16 months, we engineered a system to support the M2480D using the large 'skid beams' that were designed to support drill tower on the platform.

Throughout the engineering design process, a number of challenges were methodically addressed including ensuring that the M2480D could lift the required modules (weighing up to 120 tonnes) from supply vessels in varying sea states.

Our solution also included the design and fabrication of a grillage that was able to transfer the loads generated by the M2480D to the platform. This also allowed the M2480D to be offset so that the crane had the required capacity to lift the modules from the supply vessels and place them into their final location on the platform.

THE RESULT

A detailed plan was developed to transport and install the M2480D using the existing Favelle Favco service cranes working on the platform.

Over four weeks, Marr's M2480D safely unloaded and installed seven main module lifts weighing up to 120 tonnes. The new processing facility was installed without incident.



THE SUCCESS OF THIS PROJECT REQUIRED TEAMWORK AND DETAILED COORDINATION THROUGH DESIGN AND CRANE TRANSPORTATION, TO TESTING AND MODULE INSTALLATION. MARR'S TEAM SEAMLESSLY INTEGRATED INTO THE PROJECT TO DELIVER A SAFE AND SUCCESSFULLY EXECUTED CAMPAIGN



CLIENT PROJECT MANAGER



Marr's solution allowed heavy modules weighing up to 120 tonnes to be lifted from supply vessels onto the platform in varying sea conditions.