

Make the move

STRUCTURAL ENGINEERING

to MARINE CONTRACTING



Interested in the exciting opportunities in the marine contracting sector but not sure how to match your education, experience and skill set to a relevant career? This **make the move** series aims to explain just where you might fit in.

Working as a structural engineer on land-based projects can be an absorbing and rewarding choice of career. Adding the extra element of the sea makes it all the more exciting.

Whether a student or existing practitioner, your skills will find a wealth of varied applications in the marine contracting industry.

- The structures involved range from the miniscule to the massive, calling for vastly different approaches to their design and analysis.
- The loads they are required to withstand are often dynamic and frequently complex, involving interactions of wind, wave and current as well as the motions and accelerations of the vessels themselves.
- Load cases cover an equally varied spectrum, and are often temporary – such as the various stages of load-out, transport, installation and installed condition analysis of, for example, an accommodation module on an offshore oil or gas installation.
- Then there are discrete components within a larger structure, such as a crane, which may need to be repaired or reinforced. The constant presence of a corrosive saline environment creates challenges of its own in terms of analysing the condition of older structures, and there will rarely be a shortage of fascinating special cases to resolve. How would you analyse a 400mm diameter pipe arching off the back of a pipelay vessel to touch down on the seabed 1,500 metres away in deep water, for example? Dynamics, high water pressure and tension, large deflections and steel tolerances all need to be taken into consideration.

These examples represent only a fraction of the stimulating and fascinating opportunities for structural engineers in marine contracting – whether onshore or offshore.

That's not all. You'll also be encouraged to develop your skills in managing people, equipment and projects to deliver results.



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