

NAVAL ARCHITECTURE • MARINE OPERATIONS • ENGINEERING • OFFSHORE

CURRICULUM VITAE

Robert Clark

Contact Details

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A Chartered Naval Architect with versatile technical, commercial and management capabilities, delivering on Energy and Infrastructure projects within the marine, offshore & nuclear industries. Robert has extensive experience of offshore energy and consultancy works across a wide range of the industry encompassing; fixed and floating offshore wind, energy storage, offshore structures, flexibles, subsea infrastructure, as well as offshore decommissioning and heavy/project critical cargoes. Robert has led and coordinated teams of multidisciplinary engineers, mariners, subcontractors and JV partners to deliver on complex engineering scopes, answering directly to senior and corporate leadership teams, ensuring that commercial and corporate aims and objectives are met.

Robert leads TMC's advisory and energy transition services providing technical expertise to decision makers to inform strategy and manage risks.

Qualifications:

- MEng (Masters) Honours Naval Architecture
- CEng ECUK Chartered Engineer (RINA)
- MRINA
- BOSIET

Key Skills and experience:

- Provision of technical expertise in the support of floating offshore wind M&A
- Floating offshore wind construction advisory to port board
- Assessment and qualification of novel technologies associated with offshore mooring and heavy lift operations.
- Expert witness for offshore wind asset allision

Robert Clark Naval Architect



APPOINTMENTS and RESPONSIBILITIES

TMC Marine Consultants Ltd, London, UK Group Head of Advisory and Energy Transition

2023 - Present

Key Responsibilities and Achievements

Responsible for the development and delivery of strategic road map for advisory services with a focus on supporting the uptake in offshore renewables and decarbonisation of shipping.

Responsible for the technical delivery of advisory services across the group.

Provision of technical expertise in pre-risk / advisory projects as well as post loss.

- Confidential Expert Witness for offshore wind allision case including provision of technical expertise and review of quantum.
- MECO Group Provision of Expert Opinion for heavy transport claim delay dispute including consideration of weather restrictions, seafastening design and passage planning.

Bureau Veritas Solutions Marine & Offshore (BVS) Global Service Line Lead – Engineering & Advisory

2021 - 2023

Key Responsibilities and Achievements

A global role with a remit for the engineering for marine warranty and associated services, technical due diligence, marine operations related engineering in addition to more general naval architecture and engineering design. In addition, Robert represented BV/BVS internationally, presenting at conferences and seminars. Robert managed a team of engineers delivering projects across the marine and offshore industries.

Key project experience:

- Confidential Technical Advisor to the board of a port for the development of the port as a Floating Offshore Wind marshalling and assembly hub.
- MOL TDD for OOW project investment, including consideration of technologies, organisation, and Norwegian floating offshore wind project.
- EDF PGL FLOW project Provided the operational expertise for certification of the transport and installation of 3x TLP floating offshore wind turbines.
- Confidential TDD of UK floating offshore wind farm, considering CAPEX, OPEX, supply chain, technologies, and Project.
- CNR Root Cause Analysis into FPSO floating offloading hose failure, including mediation between parties.
- Exxon Jack-up vessel screening study to identify suitable vessels for the execution of a CCS drilling scope.
- Fugro Development of spudcan concept for geotechnical Jack-up vessel.

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BVS Engineering Lead

Key Responsibilities and Achievements

Providing Engineering expertise and leadership covering structural, naval architecture and offshore engineering operations.

Principle projects:

- FOWT Technical Due diligence Project manager for Technical due diligence of a FOWT concept and pilot project on behalf of potential investors, identifying key technical and design risks.
- Boskalis TQ of motion compensated pile gripper system including consideration of system interfaces.
- CIMC Heavy lift vessel concept Technical Qualification, design development and engineering support. Hydrodynamic studies and 3rd party design review for novel 30,000t twin vessel lift concept.
- Total E&P UK MWS Project manager and engineering lead for umbilical T&I scope
- Roll Group Product Feasibility Assessment Engineering and project lead on assessing the viability of a FOWT foundation loadout concept.
- Blackfish engineering Engineering and project lead on technical qualification for floating renewable energy mooring quick connector.
- Savannah Energy Technical Due Diligence for floating production assets.
- Serica Energy MWS Engineering lead for umbilical T&I scope.

KBR – Government Solutions Engineering Lead, Senior Naval Architect

2020 - 2021

Key Responsibilities and Achievements

Providing project management, engineering management and marine technical expertise to a range of projects and tenders aimed at supporting UK defence. The role involved extensive stakeholder engagement and coordination across a range of industries as well as the management of technical scopes and subcontracts within pre-defined frameworks in heavily regulated environments. Principle Projects:

- Coulport Continuous Availability Project:
 - o Engineering lead and project manager on defence asset integrity management and life extension project

Commercial Projects

- Faslane Nuclear Infrastructure Continuous Availability Project technical bid (successful)
- Marine lead for marine defence engineering and transportation project bid. Developing and outlining the technical scope, identifying resources, and providing estimates.
- Development of commercial solution for defence capability evolution.

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Autonomous shipping system architecture development.

KBR – Energy Solutions Senior Naval Architect/Project Engineer 2019 - 2020

Key Responsibilities and Achievements

Providing marine technical expertise and project leadership & coordination to enable the delivery of a broad range of major offshore engineering and infrastructure projects at all phases from Bid through to Execute.

Principle Projects:

- BP Tortue Phase 2/3- Offshore gas development including gas processing, liquefaction, and LNG storage. Working directly to the Delivery Manager, responsible for the development and definition of the LNG storage (concrete Gravity Based solution) and LQ Platform concepts as well as delivering on Brownfield interfaces. Concept development and definition, management and coordination of multidisciplinary teams focusing on CAPEX, OPEX, ISD and OE with additional consideration for contracting strategies. Provision of marine operations and T&I technical input to the project as marine lead, collaborating closely with SMEs on the client side to develop the most efficient installation methodologies and programmes. Development of Class 3 estimate for project. Responsible for the development of Functional Specifications for key assets.
- SOCAR, UMID Babek- Transportation and installation design to a Caspian offshore gas project at a FEED stage. Role included the following:
 - o Development of the installation strategy for the lifted topsides installation.
 - Delivery of an installation workshop to the proposed installation contractor at the end of FEED to provide context to the installation strategy and ensure buy-in from stakeholders.
 - Development of NUI Jacket installation strategy and initial engineering to verify concept.
- TOTAL/SOCAR- Absheron development of topsides installation methodology, identifying module allowable weight and CoG envelopes.
- BP, ACE Jacket Jacket launch and installation modelling in SESAM identifying barge loading requirements and jacket buoyancy requirements for the operation.
- Rockies LNG, FLNG Concept Quayside mooring analysis of Inshore FLNG barge concept, including development of environmental inputs.
- Internal Floating HVDC Concept Management of the development of a floating HVDC substation concept. Managing a multidisciplinary team of specialists to define and develop a solution.

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Robert Clark Naval Architect



Global Maritime 2013 - 2019 Senior Naval Architect, Marine Warranty Surveyor

Key Responsibilities and Achievements

Senior Naval Architect/Marine Warranty Surveyor (MWS)/Project Manager on projects providing third party review and approval of the construction, transportation, and installation of high value/risk offshore projects. In addition to technical & procedural reviews and onsite attendance for operations the role required strategic oversite of the projects including cost management, contract management, HSE and logistics as well as the coordination of an international team of Master Mariners and Engineers to ensure delivery of work scopes.

Principle Projects:

- BP Giza Faroum Raven Subsea installation campaign. Long term secondment to BP Subsea Construction team (in SS7 offices), leading on BP technical readiness for main umbilical transportation and installation scope including shore pull, lay away and termination operations. Lead engineer for technical warranty and 3rd party assurance process involving extensive scope of subsea asset loadout and transportation. Management of engineering reviews, coordination, and organisation of personnel for required attendances.
- BP- West Nile Delta Taurus Libra Working as MWS / marine assurance for the transportation and mobilisation offshore of subsea assets. Secondment to BP project office. Long term attendance in Egypt as MWS and client rep.
- Northland Power Deutsche Bucht, MWS project engineer for monopile installation works.
- SSE Dogger Bank Windfarm- Project manager and engineering lead responsible for the marine assurance scope for the decommissioning and removal of the Dogger Bank metmasts. Ensuring the safe removal of the innovative suction pile foundations and other components using a heavy lift jack-up.
- ConocoPhillips Decommissioning Southern North Sea Various Fields MWS and assurance package manager for the removal of 5 platforms. Extensive engineering review of heavy lift engineering (4,000T +), weight control reports and structural engineering required for the removal of multiple bridges, topsides modules and jackets utilising several different vessels.
- ConocoPhillips Pressure Vessel Transportation Project manager and lead engineer for the SPMT loadout, transportation and load-in of a number of propane bullets.
- Burullus Onsite attendance for subsea flexible transpooling operations.
- Shell Prelude GM Project lead and representative for the for the equipment loadout and transcontinental transportation scopes Extensive client and contractor interfaces; management of vessel suitability surveys as well acting as the client representative for engineering management of change on site.
- Maersk Oil Culzen Attendance on site for the Jacket (11,000T) SPMT loadout onto North Sea barge.
- Statoil Dudgeon Wind -Attendance on site for the SBMT loadout of the Siemens offshore substation topsides onto transportation barge.
- Dong Energy Race Bank OWF Attendance on site as MWS and client representative for the issue of approval for loadout and towed transportation to site for windfarm Transition Pieces.

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Naval Architect

Key Responsibilities and Achievements

- Marine consultant executing and delivering on a broad range of technical marine and offshore
 projects and work scopes. The work required development of a high level of technical
 competence with various software and calculation types to solve a comprehensive range of
 engineering problems. Projects included but not limited to:
 - Development and delivery of a design for a multi-use Nacelle seafastening system for Burbo Bank OWF project
 - O Dynamic positioning analysis for a fleet of drill ships in order to determine operational limits.
 - Operational Lifeboat availability study for a jack-up unit to confirm design compliance with regulations.
 - o Completion of a jack-up vessel Formal Safety Assessment, requiring familiarity with SOPs.
 - OCIMF.
 - Development of a structural design, using the DNV's SESAM suite, of a steel Helideck and thruster foundations for a GM/Baoham designed Jack-up rig to CAP 437 and ABS MODU rules.
 - o Optimoor passing vessel analysis to determine moored vessel motions as technical Expert Witness work.

Memberships:

• The Royal Institution of Naval Architects

Research:

• Obtained TTrig grant funding developed, delivered and tested a novel air lubrication system prototype.