



**ANDY MCGIBBON**  
BEng, PgDip

### Senior Naval Architect

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Andy is a Naval Architect with over 17 years' practical engineering and design support experience for marine-related projects. He has a BEng in Naval Architecture and PG Dip in Marine Technology from the University of Strathclyde and, on graduating in 1996, joined Strachan & Henshaw in Bristol as a project engineer. Andy also worked for UMC International, BVT and SeaTec before joining Brookes Bell Safety at Sea Limited in October 2014.

Andy has experience in ship and submarine structures and equipment that includes hull repair and conversion, stabilisers, rudders and thrusters, a large proportion involving design of equipment and procedures to facilitate afloat repair or replacement. He has been involved in structural and mechanical design, stress analysis using hand calculations and FEA, R&D and 3D concept integration work, and production of procedures and their associated risk assessments.

Andy has considerable practical experience of dockyard, ship and offshore support that includes site management of dive teams, support staff, infrastructure and fitters, and more recently carried out 3D laser scanning (using FARO scanners) to create as-built 3D CAD models using the captured data for integration of replacement equipment and new systems.

### Academic Qualifications

PG Dip Marine Technology University of Strathclyde, Glasgow, UK

BEng (Hons) Naval Architecture & Small Craft University of Strathclyde, Glasgow, UK

### Previous Employment History

SeaTec UK Ltd (V Ships), Glasgow - Senior Naval Architect

BVT, Portsmouth - Principal Structural Engineer

UMC International Plc, Southampton - Special Projects/Design Engineer

Strachan & Henshaw Ltd, Bristol - Senior Designer/Design Engineer/Project Engineer

### Naval Architect and Surveyor Experience

- 3D laser scanning (FARO scanners, FARO Scene scan stitching and webshare software) to create 3D as-built CAD models using the captured data for integration of replacement equipment and new systems.
- Hull and compartment modelling using NAPA in support of Vessel Emergency Service.
- Design review of bilge keel repair cofferdams FPSO Terra Nova.
- Technical review of wreck removal procedures for MV Amurigyha.
- Design of sealing arrangements for cooling water pipework and tailshaft cofferdam for NDE inspection on RN submarines.
- Concept design for modular cofferdam to facilitate for afloat repairs to drydock caisson.
- Design review of transit cofferdam on Ocean Spirit, following grounding.
- Feasibility study investigating afloat brace installation for semi-submersible Buchan Alpha.
- Design of bow sonar and hull plating cofferdams for T45 Destroyer.
- Feasibility study into the design of ROV installed hull blanks for Shell Prelude FLNG.
- Structural design of foundations, boom rests and access platforms for replacement cherry picker cranes on Technip Wellservicer.
- Structural design, procedures, risk assessments, on-site management and support.
- Drydock and afloat replacement of RN T23 and T45 stabilisers.
- Modular floating dock for Tongkang refurbishment Clarke Quay (Singapore).
- Hull insert repair cofferdams for Premier Oil FPV Balmoral (UK North Sea).
- Afloat replacement of main shaft seals RN T23 and LPD.
- Azimuth thruster motor replacement on Technip Big Blue.
- Blanking of suction and discharge culverts for Thames Shell building.
- Tunnel thruster replacement MV AL Khor, Musca and Uranus.
- Shark tank support replacement for Atlantis Dubai.
- Spudcan repair cofferdam for jack-up rig Sagar Kirian.
- On-site management and hands-on repairs to stabilisers and rudders, including development of afloat procedures HMS Illustrious.
- On-site management and coordination of dive team and underwater welders, and design of temporary 5x8m repair patch on MV Madrisa (to facilitate draining of flooded hold for ship transit) following ship collision in Guinea.
- Production of policy paper and procedures for MoD Salvage & Marine Operations (SALMO) in support of RN Surface fleet.
- Structural integration for new accommodation block, internal bulkheads (damage sub-division), tunnel and azimuth thrusters for Ice Maiden project. Client and site liaison, providing conflict resolution and clarification on technical queries and lofting issues.
- Feasibility studies and R&D work for replacement of rudders and bow dome sonar for the Royal Navy, in-house development of new equipment including propeller cropping equipment and automated hull cleaning system.
- Emergency response procedures for RORO ferries and a PFEER assessment of a Floatel for UKCS operation.
- Support of repair and re-float procedures for wreck removal and shiplift failure investigation.