

**BSc Civil and Structural Engineering**  
**Member of the Institution of Civil Engineers**  
**(CEng) (MICE)**  
**Basic Course for Commercial Diver**

**10 years experience in port design & site construction**

**10 years experience in port planning**

**10 years experience in damage assessment and project reviews**



### PROFILE

Richard Bodenham is a Maritime Civil Engineer who provides consultancy services to Maritime Insurers; Maritime Operators, Port Owners, Vessel Owners and Operators, Funding Agencies and Insurers.

His extensive experience includes; surveying port facilities and structures for evaluation of damage, repair methods and mitigation of losses; liaising with repair contractors, certifying repair works; planning and assessment of port operations.

His principal experience in maritime civil engineering has been Jacobs Engineering who is a major international consultancy firm. Principal projects being concerned with; inspection, appraisal, planning and design of port projects; and supervision of construction of new and damaged port facilities. This involved extensive overseas travel and work on over 50 port projects worldwide.

### EMPLOYMENT HISTORY

2005 to date	Cwaves Limited Director
2002 - 2005	London Offshore Consultants Ltd Senior Civil Engineer
1974 - 2002	Jacobs Engineering Principal Civil Engineer
1973 – 1974	Touche Ross Chartered Accountants

### PROFESSIONAL EXPERIENCE

❖ **Port Damage Assessment** – Vessel and port damage assessments on behalf of insurers, vessel owners and charterers and port operators. Vessel impact damage assessments including:- berths, fenders, breakwaters, LPG and petroleum loading arms; gantry cranes, power generators and power cables; sub-marine power cables and water pipelines. Fire damage to port infrastructure and buildings; hurricane damage to jetties, conveyors and dredged channels. Storm and vessel grounding damage to breakwaters, moorings and port facilities.

❖ **Unsafe Berths and Ports** – Investigation of cause of vessel damage in ports to determine whether the vessel or the port owner/operator was at fault. Investigations include:- vessel breaking mooring whilst discharging; inaccurate data published by the port; erroneous wind direction data issued by the port authority to the vessel, ports not fulfilling statutory obligations; inadequate maintenance and provision of port facilities; inadequate provision of tugs; vessel size greater than design capacity of berth; inadequate exchange of environmental data between the port authority and the vessel.

❖ **Port Assessment and Planning** – Assessment of port facilities for vessel owners, port owners, investors, funding agencies and insurers. Assessments include:- extensions and new container terminals for Maersk and ABP; port privatisation for EBRD and Danida; new port siting studies for governments in South Africa, Russia and the Middle East; dry bulk cargo terminals, tanker terminals, ferry terminals; Ro-Ro terminals, marinas and breakwaters.

❖ **Port Design** - Outline and detailed design for new ports and port extensions. Projects include:- deep water cofferdam berths incorporating industrial cooling water systems; tubular piled jetty for bulk carriers; LNG berths for an offshore terminal; Ro-Ro facilities for vehicles and trains; blockwork walls for longevity and temporary works for construction.

❖ **Port Construction** – Contract documentation, tender evaluation, contract award and supervision of construction. Projects include:- dredging for navigation channel and berths; reclamation for port construction; construction of general cargo berths, deepwater industrial berths, fishing harbour, small craft harbour for tugs and service vessels, pontoons for high speed craft, port security berths and naval bases for frigates, minesweepers and submarines.