



# Our Services

Comprehensive scientific and  
technical consultancy



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## Company profile

Brookes Bell is a leading multi-disciplinary technical and scientific consultancy serving the marine and energy sectors.

Founded in Liverpool in 1903, Brookes Bell also operate in London, Glasgow, Shanghai, Hong Kong and Singapore and enjoy a reputation for being the 'go to' firm for casualty investigation, forensic analysis, technical dispute resolution and expert witness work.

Technically innovative, our people have unrivalled expertise across a range of interrelated disciplines including Engineering (Marine, Civil and Mechanical), Nautical Services, Naval Architecture, Cargo Science, Fire Investigation and Metallurgy/NDT, enabling complex projects to be delivered through a single point of contact. This wealth of practical experience is combined with cutting-edge in-house technology.

We investigate, survey, troubleshoot and advise on a broad range of marine and energy matters including, amongst others, casualty investigation, litigation support, salvage and wreck removal, design support, scientific cargo expertise, superyacht services and bespoke software products.

Brookes Bell's reputation for excellence is founded upon integrity and proficiency and we are proud to count the world's most eminent P&I Clubs, Shipowners, Charterers, Underwriters, Cargo Owners, Lawyers, Salvors, Shipyards, Average Adjusters and Government Departments as our clients.

## Vision

“To be trusted and recognised internationally as the leading multi-disciplinary technical and scientific consultancy, serving the marine and energy sectors”.

## International Reach

Based in Liverpool we have offices in London, Glasgow, Shanghai, Hong Kong and Singapore.

With people on the ground in 17 jurisdictions we have significant knowledge of local conditions and provide rapid response to anywhere in the world.

Wherever you are in the world we will be there to support you.

Cargo ships waiting at anchorage off the coast of Singapore



Ship aground

## Services

### Nautical Services

Brookes Bell's Master Mariners have direct command experience handling a diverse range of ships including passenger/cruise ships, bulk carriers, Ro-Ro/Ro-Pax ferries, fast ferries, car carriers, LNG carriers, container ships, refrigerated general cargo vessels and tankers.

Our Mariners are regularly instructed by P&I Clubs, Shipowners, Charterers, Underwriters, Governmental departments and Lawyers to advise on a range of incidents including collisions and groundings, salvage and wreck removals, dock damages, piracy disputes, speed and consumption disputes, stowage and securing arrangements for project and general cargoes (including timber) and also casualty project management.

### Salvage and Wreck Removal

When you need salvage and wreck removal experts, our in-house team of SCR Master Mariners, Naval Architects, Marine, Civil and Mechanical Engineers provide a one stop shop for specialist marine advice, consultation and project management.

We also have the capability to carry out drone surveys as a means of quickly providing an overview of a casualty, particularly where it may not be possible to gain all around access by land or sea.

As an Associate Member of the International Salvage Union you can rest assured that we have fulfilled the membership criteria of consistently providing successful salvage and pollution prevention.

### Marine Engineering

Brookes Bell's Marine Engineers investigate a wide range of incidents including hull and machinery surveys, specialist crane investigations, forensic engineering investigations, technical management and routinely provide expert witness evidence in court and arbitration proceedings.

Drawing on decades of practical experience they provide prompt and accurate preliminary advice followed by detailed analytical comment to a forensic level, as required by our clients.

### Scientific and Cargo Expertise

Scientists at Brookes Bell provide unrivalled technical knowledge relating to the transportation of all types of commodities carried at sea. We have decades of experience of applying our scientific and technical knowledge in difficult or unusual situations and with our understanding of shipping and access to the other expertise within Brookes Bell, we can offer unparalleled flexibility.

Brookes Bell's proven track record of assisting clients can be traced back over 50 years and we have a strong record of success in providing expert evidence for litigation. Our Scientists have backgrounds in physics, chemistry, biology, geosciences, foods and feedstuffs, coatings and hull fouling.



Collision damage

### Naval Architecture

Brookes Bell's experienced Naval Architects provide a wide range of Naval Architecture Services to marine and offshore clients. With backgrounds in ship design, class and regulatory compliance, shipbuilding and in-service support, we can fulfil the specific and diverse needs of our clients.

Our Naval Architects regularly carry out structural analysis and design, along with intact and damage stability assessments. They also provide manoeuvring and flooding simulations, risk assessments and casualty investigations as well as advising clients on new build compliance and chartering/purchasing disputes.

### Software Products

Brookes Bell have developed a unique set of software products to support operators, shipyards and ship designers to efficiently manage the requirements for ship regulations during design and operation. Our products have been in use in industry since 2002 and have a proven track record in regulatory alignment for the maritime industry. We aim to support the improvement of safety of life at sea through our products, and we constantly develop and improve them to deliver valuable professional tools to industry.

### Systema™ – A digital systems model for the lifetime of the vessel

Systema™ is a software product designed specifically to support passenger vessel designers and shipyards in analysing the redundancy of their ship systems against the Safe Return to Port provisions and the corresponding IMO guidelines. It is a proven product which has been used on at least 18 cruise vessel designs to date.

### SRtP Onboard™ – Advanced operational logistic support tool

SRtP Onboard™ is a proven onboard management software tool facilitating the management of the crew's response to an SRtP casualty or drill as per the requirements of IMO regulations.

### EVI™ – Advanced Pedestrian Dynamics tool

EVI™ is a multi-agent ship and port terminal evacuation analysis tool in use since the first interim guidelines were published by the IMO in 2002 and is designed to support shipyards and ship designers in assessing vessel designs against the latest regulations. EVI™ conforms to the definition of advanced evacuation analysis in accordance with the IMO Guidelines for passenger ships (MSC/Circ.1533) and the provisions of SOLAS Chapter II-2 Regulation 13-7.4 (evacuation analysis).

### Fire Response and Investigation

Our fire experts have many years of experience of successfully responding to complex fires in both the civil and criminal sectors and can react rapidly to events across the globe.

Often, fires and explosions occur extremely rapidly during the same chaotic event – with fires causing explosions and vice versa. Dealing with these events can be complex and challenging. When the initial event has been successfully resolved, it is essential to determine at an early stage the chronology of events to set the investigation on the right path from the start. Conversely, any failure to do so can be difficult or even impossible to recover from later in the investigation. Dealing with these events and the subsequent investigation requires a rapid initial response by properly equipped, trained and experienced experts with a keen eye for detail right from the start.

**Metallurgy, Inspection and Non-Destructive Testing**

Brookes Bell offer professional expertise and experience in investigation of quality issues, defects and failure relating to all types of metallic components.

Metallurgy is a branch of science and engineering, relating to the study of metals and materials. By understanding the fundamental behaviour of metals, our metallurgists can determine how a component or structure should react in a given environment or under certain mechanical loads.

**Ports and Terminals**

Brookes Bell investigate, survey, troubleshoot and advise on a range of disciplines on land and in marine environments. A Port Survey Consultant will be at the forefront of marine civil engineering claims associated with Fixed Object Damage (FOD) and can be on-hand to support claims anywhere in the world, when and where they are needed.

**Fuel and Liquid Cargo Services**

Brookes Bell's fuel chemistry specialists advise on fuel specification issues and provide interpretation of laboratory test and investigative analysis data. In cases of dispute, our chemists offer advice on sampling and testing, and will formulate and arrange detailed analysis programmes designed to assess compliance with routine ISO 8217 Table 2 test requirements, investigate the presence of adulterants (which may place the fuel in breach of the General Requirements of the International Standard) and explore causal damage mechanisms.

**Superyachts**

Whether you are a superyacht owner, manager, insurer, designer, captain, engineer or project manager, Brookes Bell can meet your needs with our full range of services that will be tailored to your project's requirements.

Brookes Bell's highly qualified in-house experts use the skills and experience acquired through working in the passenger ship industry to benefit the superyacht sector. Using a multi-disciplinary approach, we use our extensive in-house expertise to provide specialist services including bespoke design support, safety solutions, casualty investigation, salvage and wreck removal operations, forensic engineering and expert witness work. This wealth of practical experience is combined with cutting edge in-house technology.

Brookes Bell is the go-to firm at every stage of the superyacht lifecycle.

Whatever your technical or scientific requirements Brookes Bell has a highly skilled and experienced team of experts ready to help you. For more information please visit our website ([www.brookesbell.com](http://www.brookesbell.com)) or contact us on **+44 (0)151 236 0083**.



Superyacht at anchor

[brookesbell.com](http://brookesbell.com)