



RAYMOND JOHN LUUKAS
BEng (Hons), CEng, MIMarEST, FCMS, MIFireE

Consultant Engineer

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Ray Luukas is a chartered engineer with a First Class Certificate of Competency and a BEng (Hons) Mechanical Engineering degree, First Class. He joined Brookes Bell in 1992 and became Chief Technical Officer, Marine Engineer in 2019 and Consultant in 2024. Ray is also a Supporting Member of the London Maritime Arbitrators Association (LMAA).

His main surveying and consultancy experience is in the field of hull and machinery surveys, including hull structural failures (bulkheads/side shell and framing) and main and auxiliary engine damages (crankcase explosions, scavenge fires, crankshaft/bearing failures, and contamination of fuel and lube oil systems). This has included intensive involvement in major casualties, including collision, stranding, grounding, salvage and wreck removal, engine room flooding and fires, and total losses. Ray also has experience in marine electrical installation problems, both power generation and distribution.

Major salvage and wreck removal cases have included MSC NAPOLI and RIVERDANCE off the UK coast during 2008, in which Brookes Bell acted as project manager and supervisor for owners/insurers. Ray prepared ITTs, tender analysis and presentations to insurers and UK Government SOS rep (Secretary of State Representative) and Environmental Agency. In 2015, Ray was also involved with the wreck removal of GOODFAITH from Andros Island, Greece.

He also provides advice on a range of machinery and hull-related disputes, including machinery failures, crane failures/problems, new building and repair disputes, sale and purchase disputes, bunker disputes, maintenance disputes, redelivery (Bare Boat) disputes and damage to machinery cargo.

During his time as a surveyor he has worked on many ship types, including general cargo vessels, bulk carriers, OBOs, container ships, ro-ro vessels, reefers, tankers, FSOs and FPSOs. Ray has particular experience in disputes involving high-speed craft (mono-hull and multi-hull types) and high-speed propulsion units/waterjets.

Ray has also investigated machinery damage to, and total losses by sinking of, superyachts and megayachts, new build and sale and purchase disputes.

He has prepared technical reports and has given evidence as an expert witness at arbitrations and court hearings in the UK, Germany, Norway, Denmark, Japan and USA.

Before becoming a marine surveyor, Ray Luukas was at sea over a 14-year period, serving in general cargo vessels, container ships, bulk carriers, VLCC and LNG tankers in all ranks up to and including chief engineer. During 1988/89, he also carried out superintendency duties, including dockings and sale/purchase inspections. While working offshore in the North Sea, he was chief engineer of a heavy-lift crane barge.

Professional Qualifications

Class 1 Motor Certificate of Competency

Class 2 Steam Certificate of Competency

Academic Qualifications

1st Class BEng (Hons) Mechanical Engineering degree

Professional Memberships

Chartered Engineer

Member of the Institute of Marine Engineers

Fellow of the Society of Consulting Marine Engineers and Ship Surveyors

Member of the Institute of Fire Engineers

Surveying and Consultancy Employment

Sea-Going Employment

Costain Land & Marine Engineering Ltd. - shore and sea-based positions (superintendent and chief engineer) on offshore maintenance vessels, heavy-lift crane barges, tugs, workboats, etc.

Kardla Shipping Co. - second/chief engineer/superintendent on geared bulk carrier and general cargo vessels

Shell Tankers (UK) Ltd. - fifth engineer on VLCCs, LNG carriers, lightering tankers

Ocean Fleets Ltd. - engineer cadet on general cargo, container and ro-ro vessels

Surveying and Consultancy Experience

- Hull and machinery surveys, including:
- Bunker quality and quantity disputes
- Collision damage
- Electrical power failures
- Engine room fire and flooding investigations
- Grounding damage assessment
- Hull and machinery repairs, including preparation of specifications, inspections, assessment of costs, etc.
- Main engine and boiler failure investigations
- Salvage
- Wreck removal
- Speed and angle of blow
- Sterntube and shafting failures
- Rudder and propeller damages
- Structural surveys of bulk carriers
- Ventilation and refrigeration machinery failures

Others:

- Cargo hold ingress investigations
- Condition surveys
- Crane failures - ships' cranes and shoreside cranes
- Damage to fixed and floating objects
- Damage to machinery cargoes
- High-speed craft surveys, performance assessment and propulsion system failure investigations.
- Maintenance disputes
- New building disputes, including ships and superyachts
- Charter Party disputes including Bare Boat redelivery disputes
- Oil pollution and MARPOL violation investigations
- On-/off-hire and pre-purchase surveys
- Personal injury
- Repair disputes
- Speed and consumption and performance disputes
- Total losses by sinking (ships and mega-yachts)

Types of main and auxiliary engines:

- B&W Alpha
- B&W MAN
- Caterpillar
- Deutz
- MAN
- Mirrlees Blackstone
- GM/Detroit Diesels
- MTU, Ruston
- Sulzer
- Wärtsilä
- Mitsui
- Yanmar
- Mitsubishi
- Diahatsu