



RÉSUMÉ AND CURRICULUM VITAE

PERSONAL DETAILS & QUALIFICATIONS

Name: Calum Tee
Position: Engineering Consultant
Nationality: British
Education: MSc Mechanical Engineering

EMPLOYMENT RECORD

2019 – Present *Argo Engineering Solution Ltd*, Engineering Consultant
2016 – 2019 *Technodyne International Ltd*, Mechanical Engineer
2013 – 2016 *Magma Structures Ltd*, Mechanical and Composite Engineer
2012 – 2013 *Shemara Refit LLP*, Mechanical Engineer
2011 – 2012 *Princess Yachts Ltd*, Metrologist

RÉSUMÉ

I am currently an Engineering Consultant at Argo Engineering and have experience working in a range of roles specialised around the marine and petrochemical sector. I have been mostly involved in one-off projects which challenge the norms of understanding. Projects of this nature typically testing the limits of design codes, requiring a first principles design approach in tandem with detailed FE analysis and physical testing.

The combination of the companies and projects I have been involved in gives me a strong and varied foundation in engineering, from both a design office and a manufacturing/construction environment.

EXPERIENCE

Composite Wing Sail

I was the principal structure engineer for the design of a large commercial wing sail for use of shipping vessels. The structure was a laminate composite construction, comprised of 4 main elements with the design supplied to the client for manufacture.

22m SES CTV

I was the principal structural engineer for an aluminum high-speed surface effect ship for wind farm support. A structural report including First principle calculations and FEA alongside a set of structural drawings which were all class approved.

Air Cushioned Barges (Hoverbarge)

I have worked on several ACB studies for clients who considered the overall integration of them into their business and delivered designs for ACBs with over a 1,000 tonnes payload with class approval in principle.

Gondola Sensor Housings

I was the principal structural engineer in the design of a subsurface gondola for housing sensitive sea scanning equipment, using a range of FRP, engineering plastics, metallic materials and over 2 tonnes of lead ballast in its design. The external surface with subject to CFD DES analysis to mitigate risk of resonance and turbulence flow over critical areas. I was involved in assembling and delivering multiples gondola structures to the client for their commissioning.

Large Yacht FEA

Using Strand7 FEA software I have worked with clients to deliver 3 private motor yachts structures in both steel and aluminum, in excess of 100m LWL. Conducting global and local analyses to mitigate structural risks. With experience on the structural analysis of azimuth pod type thrusters.

23 m Catamaran Passenger Ferry

I was the principal structural engineer for an aluminum passenger ferry. A structural report including First principle calculations and FEA alongside a set of structural drawings which were all class approved.

Cryogenic and Low Temperature Liquid Hydrocarbon Storage Tanks.

Whilst at Technodyne, I carried out FE analysis to aid in my key tasks of engineering and designing critical structural elements of storage tanks in an array of different countries, up to 85m in diameter and 60m in height. Working to a range of design codes, I ensured that the components complied with pressure vessel, seismic or general structural requirements.

World's Largest Composite Free-Standing Yacht Masts

Whilst at Magma, I was a key member of the design team for the design and manufacture of 100m tall masts for Sail Yacht A. I designed, oversaw, and worked with production for the mechanical integration into carbon / epoxy structure and was integral in the shipping, loading/unloading the masts. I wrote the FAT procedures, maintenance, and operational manuals.

65m Dynarig Yacht Masts

Whilst at Magma I was involved in the design and build of a 65 m 3 mast Dynarig project, for Sail Yacht Black Pearl. I designed, oversaw, and worked with production for the mechanical integration into carbon / epoxy structure and was integral in the shipping, loading/unloading and stepping of the masts.

1930's 65m Super Yacht Rebuild

Whilst at Shemara Refit, I was responsible for designing and routing the vessel's piping and arranging the machinery. I liaised with the vessel's structural engineers and oversaw the mechanical aspects of the build. I wrote the ships mechanical systems testing and commissioning procedures, along with the operation and maintenance manuals.

Metrologist

While working at Princess Yachts, I operated a portable CMM device digitally scanning & surveying boat checking moulds and tooling equipment for their dimensional accuracy.

Professional Development

Master's Degree

As part of my professional development, I completed a part-time MSc in Mechanical Engineering at Loughborough University whilst working.

Chartered Member of Institute of Mechanical Engineering (CEng MIMechE) Member of the IMechE Southampton Area Committee

OUT OF WORK INTERESTS

My key out of work interest is currently spending time with my young family and getting outdoors as much as possible, particularly hiking in the local area.

To try and maintain an active lifestyle I enjoy cycling and running, taking part in several social riding and running events throughout the year.
