# **RÉSUMÉ AND CURRICULUM VITAE**



## **PERSONAL DETAILS & QUALIFICATIONS**

Name: Simon Walley

**Position:** Owner (Argo Engineering Solutions Ltd)

Nationality: British

**Education:** BEng (Hons) in Aeronautical Engineering - Loughborough

## **EMPLOYMENT RECORD**

**2016 - Present Argo Engineering Solution Ltd, Owner** 

**2014 – 2016** *Magma Structures Ltd*, Business Development Manager

**2005 – 2014 BMT Nigel Gee Ltd**, Head of Structures

**1997 – 2005** *CETEC Ltd*, Principal Engineer

**1996 – 1997** Esso Pipelines Ltd, Contract Engineer

**1995 – 1996** Transco, Junior Engineer

## <u>RÉSUMÉ</u>

I am a structural engineer with more than twenty five years' experience, specialising in structural design, analysis and working in a special projects environment. I started Argo in 2016 and now run a team of 12 with 10 technical staff. Our primary markets are Windship Technologies, Air Cushioned Barges, Fast / Light / Electric Craft, Subsea Sensor gondolas (design and build) and advanced / weight critical structures that are mainly in, or associated with, the marine industry.

Previously, I ran the structural engineering department within BMT in Southampton for 10 years before moving to Magma Structures to help build the large composite masts in the world for Sailing Yacht A and Black Pearl.

I have a wealth of experience communicating at all levels from boardroom to the shop floor. I have successfully run focused design teams for many years and have identified some of the significant projects I have held responsibility for in the examples below:-

## EXPERIENCE - A snapshot of some projects I have had a significant role in

## **Arc Global**

Chief Engineer for innovative observation capsule attraction carrying 40 people to 70m above Bristol Harbour in the UK. Project includes a mix of steel, aluminium and slender carbon fibre masts – all designed within Argo. Scheduled for opening in 2025.

## Windship (WASP) Projects

Structural Design Lead for two separate Wind Assistance Ship Propulsion projects that are in build. I am helping two very different WASP technologies achieve the same aim.

#### **Electric Boat / Outboard Development**

Design lead for the structure, weights and drivetrain for the RS Electric Pulse electric RIB boat. This culminated in troubleshooting the design of the electric outboard for a different client and providing working prototypes for the first 3 units.

#### **Lightship Kittiwake Lifting**

Over Christmas 2022, the 500t Lightship – Kittiwake - was lifted out of Dublin Harbour, placed on cradles and moved to a temporary storage facility before being refitted as an attraction. I provided an assessment of the condition of the vessel, the suitability of the structure for lifting, the lifting arrangements, the cradle design and the SPMT arrangements.

#### **Global Strength FEA for Superyachts**

Argo have provided global Finite Element Analysis support for a successful local firm of Superyacht Naval Architects. These include analyses of 6 motor yachts above 100m and 1 sailing yacht above 125m.

## **Ocean Infinity Sensor Gondolas**

Design Lead for the design and supply of sensor gondolas for the autonomous Ocean Infinity (Armada) fleet of 21m and 36m vessels. 6 gondolas have been supplied to date.

#### SY A and SY Black Pearl

Technical oversight of design, manufacture and delivery of the free-standing carbon fibre rigs for the two largest sailing yachts in the world; SY A is 134m and SY Black Pearl is 106m.

#### Wind Farm Vessel Fleet

Design Lead and structural responsibility for the fleet of 18-24m wind farm support vessels designed by BMT Nigel Gee. The fleet currently includes 30 vessels across 8 designs that have been launched and proven in service.

#### 85m SWATH Yacht

Principal Engineer for structure design of triple deck SWATH hulled yacht designed to LR dual Passenger ship and SSC rules.

#### **Heavy Lift Hoverbarges**

Lead structures consultant for Hovertrans, supplier of the largest hoverbarges currently constructed. Project lead for 180t modular drill barge, 200t and 400t logistics barges. Design studies for 1,000t, 1,800t and 2,500t barges and trans-Alaskan pipe laying hoverbarge systems.

#### 107m Motor Yacht

Structures Lead for 107m high-efficiency, low weight super yacht structure built at oceAnco (MY Bravo).

## Composite Submarine Rudder Support for MOD

Independent design review and problem resolution consultant to MOD submarines group for T Class and A class submarines. Tasks include review of design calculations, attendance of design reviews, sitting on MOD control surfaces and composite materials sub-groups.

#### 95m Yacht Global Finite Element Analysis

Principal Engineer for 96m yacht global Finite Element Analysis to LR Passenger Ship Rules. Yacht was launched at Devonport dockyard in September 2011.

#### 220m MARS Tankers

Principal Engineer for structural analysis and class package for 220m MOD MARS refuelling tankers recently launched and commissioned at DSME in Korea.

#### New Caledonia 57m Catamaran

Structural Engineer for 57m high sea state aluminium catamaran structure with FBMA for New Caledonia proven in service.

## Project Gemini

Structural Engineer for world's largest aluminium sailing catamaran yacht structure, launched in 2011 by Pendennis Superyachts.

## 18m Composite Egg Radome for Kai Tak (Hong Kong)

Design Lead and structural responsibility for 18m architectural radome fitted over new Kai-Tak cruise liner terminal in Hong Kong. Specification for radome requires RF transparency and structural adequacy for typhoon wind conditions.

#### Bermuda 35m Aluminium Passenger Catamaran

Structural Engineer for 34m fast ferry aluminium structure.

## Penguin Ferries 34m Aluminium Passenger Catamaran

Structural Engineer for 34m fast ferry aluminium structure.

#### M10-29 Hovercraft

Design Engineer for M10-29 Hovercraft for ABS. Responsibilities included design of primary composite components for this, the first advanced composite hovercraft.

## Subsea Well Head Protection Structure

Project coordinator for novel sub-sea cage-type GRP protection structure for Shells North Sea Penguin field. Winner of Institute of Petroleum Award 2002.

#### Boyne Bridge 300m Cable Stayed Mast Pultruded Deck Enclosure

Project Manager and Structural Engineer for new 300m cable stay bridge GRP deck enclosure designed to resist fire for safe evacuation. Winner; Award for Innovation, 7<sup>th</sup> World Pultrusion Conference.

## Portsmouth Tri-Sail 40m Sail Sculpture (adjacent to M275)

Project Manager and Structural Engineer for Fabric sail sculpture as part of Portsmouth City Council regeneration.

## **OUT OF WORK INTERESTS**

My main interests are building and restoring cars, sailing, rugby and kayaking.

In my late twenties I built a replica Porsche 550 race car which I sold in 2014. I am now restoring a number of equally interesting but less beautiful classics cars.

I am a serial boat owner and currently race and cruise with family and friends in the summer months. I also coach children from the local school in dinghy sailing from April to November and have a model racing trimaran that I regularly race at Gosport Model Boat and Yacht Club.

In 2014 I re-discovered marathon kayaking, a sport that I had enjoyed in my youth. Over Easter of that year I completed the Devizes Westminster 125 mile canoe marathon for a second time. In 2018 my paddling partner and I set a Guinness World Record time for a Tandem Kayak Crossing of Loch Ness, a distance of 21 miles.

## **TECHNICAL PAPERS**

- 2002 National Group for Composites in Construction Conference at BRE
   Novel Use of FRP Composites in Building Construction. Author: Simon Walley
- 2. 2008 20<sup>th</sup> HISWA Symposium on Yacht Design and Construction, the Netherlands. Longitudinal Vs Transverse Framing Systems for Large Yachts Authors: James Roy, Ben Munro, Simon Walley, Alex Meredith-Hardy
- 3. 2015 Lightweight Design of Marine Structures (LIMAS), Glasgow Building Big Rigs. Author: Simon Walley