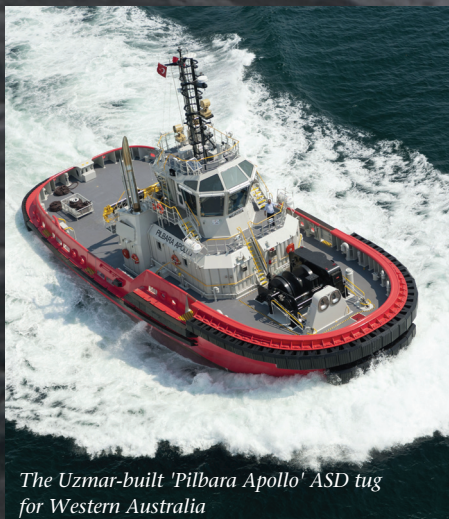


Robert ALLAN



The oceanographic research vessel RV 'Investigator' under construction in Singapore for Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO)



The Uzmar-built 'Pilbara Apollo' ASD tug for Western Australia

History

Located in Vancouver, British Columbia, Robert Allan was formed in 1930 when fledgling naval architect Robert Allan commenced a private consultancy practice after managing a local shipyard. Mr Allan was responsible for numerous designs produced for the growing British Columbia fishing fleet and for coastal ferry services.

In 1945, Robert F. Allan joined his father in the practice. The growing business was instrumental in the development of specialised tugs and barges for the burgeoning forestry and mining industries along the BC coast, as well as many craft for Canada's northland.

Incorporated as Robert Allan Ltd. in 1962, the company continued to grow and achieved international recognition for the high standards and performance of distinctive and specialised designs. In 1973, Robert G. Allan joined the family business, and in 1981 succeeded his father as President. In 2008, the company was restructured as an employee-owned corporation, with more than 20 shareholders now committed to continuing the tradition of providing professional design and consulting services to the international marine community.

Services to the marine industry

Robert Allan has an experienced roster of naval architects and marine engineers capable of handling any type of ship design, marine engineering or consulting project.

Utilising the latest in computer software, the company is at the forefront of developments in computational fluid

dynamics (CFD), finite element analysis (FEA), hull surface fairing, 3D structural parts modelling and systems integration. A host of in-house tools supports the design and engineering teams in their innovative and diverse work.

Projects range from basic concept designs to detailed technical drawings complete with shipyard production drawings – including full on site supervision. With a diverse client list comprising some of the world's largest tug operators such as Svitzer, Smit Lamnalco, SAAM, Boluda, Bourbon and Tidewater, to operators such as the Panama Canal Authority, the United States Navy and the Canadian Coast Guard, Robert Allan has a truly global presence.

Further, many of the prominent tug building yards such as Sanmar and Uzmar in Turkey, Cheoy Lee in Hong Kong – and even Damen in the Netherlands – have constructed Robert Allan-designed tugs.

Gaining a reputation as a respected and independent design/consulting firm that works closely with major marine equipment suppliers, some of Robert Allan's latest projects include the design of an LNG-powered tug for Rolls-Royce, the design of a diesel-electric tug for ABB, and development of the RAVE concept with Voith.

Another example is their status as the "official naval architects" for tugs using the "RotorTug" concept – a safe and highly manoeuvrable triple-drive tug pioneered by KST in the Netherlands.

Robert Allan also works in close co-operation with all the major classification societies. Their in-house CFD methods of escort steering force predictions have received approval from Bureau Veritas, eliminating the need for full scale or model



The AVT 3900-class tug 'Ajax' performing a tow

testing. Finally, the RAmports 3000 design has recently achieved type-approval from Nippon Kaiji Kyokai (Class NK).

Innovation and diversity in marine design

Robert Allan has been involved in the design of tugs since the earliest days of the company's founding.

Most notably, this work took place when Canada's west coast tug and barge owners were actively re-building their coastal towing fleets, replacing the first generation of wooden log-towing tugs with modern, diesel-powered steel vessels and coming to grips with "new" diesel engines. This replacement continued steadily through the 1960s and 1970s, along with the building of many new tugs to support the growing British Columbia marine industry.

More recently, however, Robert Allan has established a worldwide reputation for the design of iconic high performance tugs of all sizes and powers, from the first "compact" ship-handling tugs to large, powerful tugs for tanker escort and offshore terminal support. Drawing from their extensive catalogue of proved designs, the design teams engage with the client at the beginning of every project to adapt each new design to their requirements.

An ongoing commitment to research and development of new technologies has spawned many innovative and award-winning concepts. The ASD hull form set new standards for manoeuvrability and ahead vs. astern bollard pull. The RAstar-class tugs, which have a sponsoned hull form providing exceptional escort performance coupled with improved sea-keeping performance are the de-facto standard for modern terminal assist and vessel escort services, and the unique Z-Tech concept, developed specifically for the requirements of the Port of Singapore, won the prestigious Red Dot design award in 2005.

Robert Allan also has considerable experience in fireboat design, having designed some of the world's largest fireboats for cities such as New York, Los Angeles, Hong Kong and Dongguan (China). All of these projects required extensive customisation and a high degree of input from the individual fire departments in order to fulfil the mission requirements.

Research vessels such as the RV 'Investigator' (designed in collaboration with Alion Science and Technology) for Australia's Commonwealth Science and Investment Research Organisation (CSIRO)



The RAmpage 5500-class 'Seaways 20' is a multi-purpose tug/OSV



RAven 1800-class patrol boats for the Royal Canadian Mounted Police

and the offshore fisheries and science vessels for Canada have bestowed Robert Allan with relevant experience in this challenging field, which again requires extensive interaction with the design team to enable the client to get the boat they need.

Pusher tug pioneers

Another example of Robert Allan's ongoing design development is the company's work in shallow-draught river pusher tugs. Many designs were originally developed for the Mackenzie River in the Canadian Arctic during the Arctic "oil rush" in the 1970s.

A recent project to transport iron ore for a mining major on the Parana/Paraguay waterway in South America drew heavily on the northern experience and the knowledge gained from over 40 years of shallow water operation. This new design proved to be a challenge in engineering, from the heavy fuel diesel-electric propulsion system to the long-range demands, all the while maintaining a shallow draught specification – a task described by Robert Allan as "no easy feat!"

An additional requirement was to be able to perform a crash stop in a distance of 2.5 convoy lengths in shallow water and adverse current, proving such capability was something that could only be done using advanced CFD methods and computing power that was not available only a few years ago.



In 2010, Robert Allan delivered a pair of Ranger 4200-class fireboats to the Fire Department of New York (FDNY)



"It is projects like these that enable Robert Allan to maintain a leading presence in the design and engineering of many types of floating craft – something that all our employees are proud of," the company concluded.

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