

CARLOS MARÍA BRAÑAS

Curriculum Vitæ



Born in Buenos Aires, Argentina in 1954.

Condition: Married.

Consultant Naval Architect and Marine Engineer.

Expert witness. Marine surveyor.

LANGUAGES:

Spanish: mother language.

English: oral and written, full knowledge of technical vocabulary.

French: fluent oral, regular writing.

Portuguese: fluent oral, regular writing.

Italian: conversation.

EDUCATION:

Ingeniero Naval y Mecánico. Facultad de Ingeniería – Universidad de Buenos Aires, Argentina.

Six years program (this program covers the curricula of both Naval Architecture and Mechanical Engineering in northern countries).

MEMBERSHIPS & PROFESSIONAL LICENSES:

National Engineering Academy. Member of the Transportation Institute.

Argentinian Association of Naval Architecture, AAIN. Former President of the Board of Directors. Former director.

Pan American Institute of Naval Architecture. Former Nacional Director for Argentina. Technical Director in the period 2009/2011. Evaluator and coordinator of evaluators for the XXII Pan-American Congress of Naval architecture and Port Engineering 2011 (ISBN 978-987-27394-0-9).

European **MARTERA** Program. Appointed evaluator.

National Federation of Shipbuilding Industry. Former Pro-Secretary and member of the board.

University of Buenos Aires. Member of the Academic Advising Committee of the Naval Architecture and Marine Engineering Department. Member of the Vectors Program.

Member of the Technical Committee of **AIPPYC**, International Association of ports and Coastal Professionals.

National Board of Naval Architects and Prefectura Naval Argentina (Coast Guard): Registered Naval Architect and Marine Engineer.

Argentinean Supreme Court: Formerly registered expert witness as both Naval Architect and Mechanical Engineer.



PRESENT TIME ACTIVITIES.

From March 1990 to present date.

Establish a consultancy company in Buenos Aires, offering services of marine surveying and naval architecture.

The works carried out during this period include coordination of the design of different vessel's and port installations, design and direction of mayor conversion projects, stability alterations, hydrodynamics research, direction of large repair works, condition assessment and other surveys for owners and insurance companies, direction of salvage operations, handling of heavy jumbo cargoes, technical investigation of structural failures, machinery damages etc.

The most relevant works during this period were the following:

PROJECTS AND MAYOR CONVERSIONS

2020 – Design of a 6000 hp push boat powered by LNG engines for the HPP system.

In charge of the design team developing this new vessel.

Ahead of the Team presently studying the economic development of this business in the Paraná area.

2019 – Tankers Terminal in Campana.

Evaluation of the mooring conditions in piers C, H and G and proposal of modifications for improving such conditions.

Senior member of the team.

2018 – Tankers Terminal in Campana.

Preliminary design of pier F.

Design vessel: L = 228 m, B = 32.20m, DWT = 69 648 t

Senior member of the team.

2017 – M/V Galú conversion into passenger vessel.

The vessel was stripped off and prepared for a full conversion into luxury adventure cruise vessel for operation in the Galapagos islands.

Team manager and in charge of relation with external consultants.

2016 – River cruiser for the Upper Paraná river.

In charge of the design team developing this new vessel. Team member of the group which studied the economic development of this business in the Paraná area.

2015 – Design of push boats.

Design of a series of push boats in different Powers, optimized for operation in the Hidrovía Paraná Paraguay.

2011 - Sheer leg 300 tn SWL.

Design of a floating "A" frame, with 2 x 150 t SWL hoisting hooks and 2 x 200 t SWL aux deck tackles.

2011 – Transferring Station.

Floating transferring station for handling iron ore from river barges to ocean going vessels. The station could handle the mooring of up to Panamax size bulk-carriers.

2009 – Amadeo I – Conversion into Passenger Ferry.

Conversion from Ferry (trucks only) to Passenger Ferry. (first vessel in the region which stability was calculated with the statistical method).

Main dimensions: L 132.5 m, B 19 m, D 6.75 m, 400 PAX and trailers.



2005 – Grain fleet.

Economic and operational study for the implementation of a fleet of convoys trading grains in the Hidrovía.

2004 – FF Tug / FIFI.

Fit a sea going tug to operate in FF with certified FIFI system.

2000 – Alianza G2 – Transferring Station.

Conversion into grain transferring station, able to receive cargo from river barges and load sea going vessel and or store in her 37.000 t storage capacity.

Design vessel: Panamax bulk-carrier, 60000 DWT on starboard side and two Parana river barges (2500 DWT) on port side.

1998 – F.P.S.O.

Feasibility study. Conversion of a 120.000 DWT tanker into F.P.S.O.

1995 - Karinas / Alianza G1.

Bulk carrier 62.800 TDW, cut in way of the engine room forward bulkhead; machinery and accommodation was reemployed. The cargo area and the fore end were replaced by the forward end of a sea going barge.

1992 - Alianza G3.

This 37.500 TDW ocean going barge was converted from bulk Carrier into tanker for petroleum by-products specialized in lightering operations. One of the few conversions of the type in the world. The barge was prepared to come along side of up to Cape Size vessels.

1991 - Terra Australis.

Passenger vessel. Complete study for jumboizing.

COASTAL DEVELOPMENTS.

Beale Street Landing, Memphis, Tennessee, USA.

International competition.

Coastal floating park and terminal for passenger vessels. Several novel design issues were developed for this iconic project.

Design vessel: American Queen, 375' x 85' x 13'-6" (115m x 26m x 4.11m), 800 PAX, Disp. = 7838 t, Approach speed = 100 mm/s (0.36 km/h).

A highly sophisticated multilevel / energy absorbing fender system was developed.

The terminal was built and is operating.

Saint Louis Riverfront, St Louis, Missouri, USA.

Floating coastal Park, 1-mile long. Development of the islands concept, the floating protection barrier and the floating accesses.

New York river front – History Channel.

Development of a belt of island for different uses and of different conception as a proposal for dealing with a significant water level raise in the city of NY.

Selected as second best, it was exhibited in New York Grand Central station

Other projects.

Participation in competitions and projects for the cities of:

Trenton, New Jersey, USA; Basel, Switzerland; Seoul, Korea; Dublin, Ireland; Nueva Orleans, LA, USA.



In cooperation with:

RTN Argentina; Balmori Associates Inc, NY, USA; Oliver Brandenberger Architekten, Zürich; Robert A. M Stern, NY, USA; HOK, Saint Louis, USA and others.

SALVAGE AND CASUALTY INVESTIGATIONS.

Alianza G4.

Refloating this 37.500 TDW stranded in the coast of Necochea by non-conventional means.

October Breeze.

Design of an “exoskeleton” to allow the sailing of this severely damaged vessel from the River Plate to permanent repair premises in Singapore. The entire Pt side of the vessel in way of the midship section, was damaged.

Casualty Investigations.

In the period, responsible or being part of more than one thousand investigations, in both naval architecture and mechanical engineering issues.

SCIENTIFIC AND TECHNICAL RESEARCH.

2015 – Convoys Operations.

Comprehensive study for the development of tailored dry bulks convoys for the Hidrovía Paraná Paraguay.

2012 – River Cruises in the Paraná river.

Feasibility study for the development of a touristic axe along the Paraná River. Client: Ministry of Tourism, Argentinean Government.

1997 – PCLoader.

In charge of the development of a code for the safe loading of ocean-going bulk carriers. The code comprised evaluation of stability, stresses, trimming etc.

1992 – Manoeuvring.

Team member in the study and testing of new methods for the manoeuvring and control of very large non-propelled units when in inland waters navigation.

1992 - Government:

Participation in the development and subsequent execution of a method for the determination of the steering characteristics of non-propelled big vessels, with the participation of the University of Buenos Aires and the INCYT.

TEACHING AND SCIENTIFIC BACKGROUND.

2014

Professor, head of the Naval Structures II course for post-graduate students in the UNA, Universidad Nacional de Asunción. Designated by the Universidad de Buenos Aires.

1981 to 1982

Responsible for the project "*Dinámica del buque - simulación numérica*" (Ships Dynamic – Numerical Simulation) developed by the Naval Ship Research and Development Service of the Argentinean Navy.

1980 to 1981

Teaching assistant with increasing responsibilities to the course of Thermodynamics, University of Buenos Aires.

1977 to 1979

Teaching assistant ad-honorem, course of Thermodynamics, University of Buenos Aires.



Some publications and lectures.

Ship's dynamics. Several publications.

LNG, the fuel to recover the Hidrovía. AAIN.

The safety of Tank barges, proposal for new regulations. Navegistics in Paraguay and Copinaval 2015 in Montevideo, Uruguay.

Salvage of vessels associated to complex structural repairs, exoskeletons. Speaker invited by the Prefectura Naval Argentina (Argentinean Coast Guard) to the Salvage seminar 2017.

The development of Naval Architecture and Marine Engineering in Argentina. EINAVAL 2015, invited speaker.

Beale Street Landing, an example of port-city integration. AAIN, Argentinian Association of Naval Architecture and American Institute of Architects, by invitation in both cases.

G.N.L., Combustible para la Propulsión Naval (LNG Fuel for marine propulsión). National Engineering Academy.

Vías navegables, su impacto en los precios. (Waterways, their impact in prices) for CREA (Consortio Regional de Experimentación Agrícola).

PREVIOUS PROFESSIONAL BACKGROUND.

March 1983 to October 1988.

Superintendent in Ultraocean S. A., owners at Buenos Aires; direct responsible for a fleet of 5 large vessels (14.000 to 80.000 tons DWT) and affected to the control of other 8 under external management.

The fleet comprised the largest vessels in operation in the country at the time.

The responsibilities involved development, supervision, and execution of the maintenance programs. A significant part of these works was carried out overseas, mainly in Europe and North/South América.

Moreover, part of mayor salvage operations, advisor for the purchase of new units, and team member or in charge of large conversion projects, namely:

1984 - B/M "Zonda I" – Lightning.

Conversion of this iron ore Carrier 62.000 TDW, in vessel adapted for offshore transfer of grains suitable for operation in the outer River Plate, (grabs and cranes).

1987 - B/M "Sudestada" – Lightning.

Conversion of this iron ore Carrier 58.000 TDW, into vessel adapted to transfer cargo offshore by pneumatic system for completion of loadings.

1988 - B/M "Zonda I" – Lightning (service station).

Second stage of the conversion of this vessel. Team member for the design and start-up of the hoppers and conveyor belts integrated system, allowing the vessel to unload one vessel and load another one simultaneously (transferring station). The system was a novel design.

Between February 1981 and March 1983.

Independent Marine Expert, working mainly for: Cooper Brothers, Lloyd's agents in Buenos Aires (representing de The London Salvage Association), Nickmann & Associates, consultant Naval Architects, representing the Nippon Kaiji Kyokai, The US Salvage Association and other international organizations. Consultant for many mayor ship owners in Argentina of the time. Within the many activities developed in the period, we can mention casualty investigation of hull, machinery, electricity



and cargo, in ocean going vessels, tugs, offshore units and industrial equipment; evaluating causes of damages and proposing repairs. Furthermore, technical advisor for projects as the following:

Cranes: Reception and certification of all manoeuvring elements (gantry cranes of up to 500 tons) for the heavy water plant in Arroyito, Neuquén (National Atomic Energy commission and Sulzer Wintertur, Switzerland). Selected by contractors Mr. Sulzer, Wintertour, Suiza.

Design: Grain Transferring station feasibility study for Nickman & Associates.

Buenos Aires, March 2021.