MARINE INDUSTRIAL DESIGN

Naval Architects

Marine Engineers

Electrical Engineers

Project Managers

Welcome

Welcome to the December 2011 MID Newsletter.

It has been a busy year for the team at MID with a number of significant local and international contracts helping to establish our presence as a supplier of professional Naval Architecture and Marine Design services to the commercial marine industry both domestically and overseas.

Our projects vary from stability analysis and engineering design to solving complex problems, from saving antique paddle steamers to complex conversion and modification projects.

Through the last twelve months we have served projects ranging from Government contracts for major vessel design and modification down to simple marine engineering calculations and shipyard support. Each project is treated with the same professional approach no matter the size or value.

With a team big enough to handle the largest of projects we are still local and small enough to provide the personal touch to our clients and business partners.

We look forward to the challenges of the year ahead and wish you all the best in your businesses.

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News

New Northern Office

We have recently moved our Whangarei office to be closer to our marine clients and local shipyards.

From November our new office is located at 279 Port Road from where we can respond rapidly to requests for support from the local shipyards and our marine clients. Mark Guerin, Design Engineer, is looking after the office and has taken up the role of client contact for the area. Mark provides an accessible and ready access to the full capabilities of MID with onsite presence and face to face contact.
You can reach Mark on 09 436 4401, 021 644 110
or mark@marinedesign.co.nz

International Support

babcock

trusted to deliver™

A recent change has seen our parent company, Babcock International, take whole ownership of the New Zealand operation formerly run as the joint venture Babcock Fitzroy.

The new company will trade as Babcock (NZ) Ltd and will operate within the Babcock Pty Group, which is headquartered in Adelaide, Australia. MID will continue to operate as a wholly owned subsidiary of Babcock (NZ) and are proud to be part of the internationally respected Babcock Group and able to provide the additional services and support that come with having such a large parent organization.

Capabilities

Ongoing increase in capabilities and service

Throughout the year we have been steadily increasing our in-House Naval Architecture capabilities and have an experienced team who are able to provide full design, stability, sea keeping and maneuverability studies as well as preparing stability booklets for class approval.

For a detailed summary of the services we can offer please contact us and we will provide a tailored service description to match your business needs.

MID

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Government Contracts

Over the last 12 months MID have been awarded a number of Government contracts for Marine Design and Naval Architecture.

Concept design of a SOLAS compliant passenger/cargo ferry for the Ministry of Foreign Affairs and Trade.

Naval Architecture and Marine Design services to the Ministry of Defence

Awards

In November MID was recognised by the New Zealand Marketing Association and awarded with the 2011 TVNZ-NZ Marketing award for excellence in Business Marketing

Many thanks to the team at Traffic who helped up through our rebranding and marketing exercise

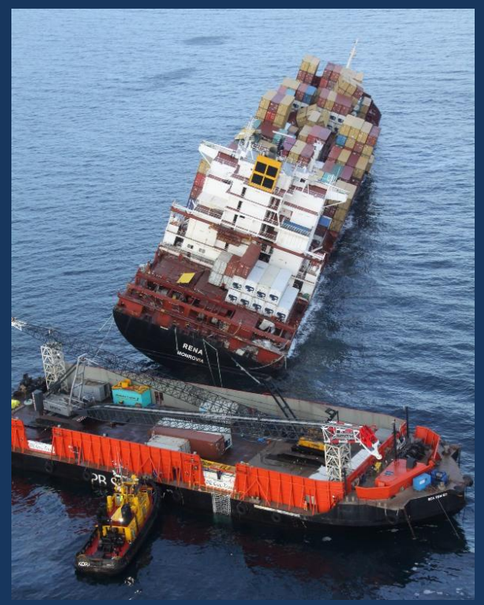
Projects

Retired Patrol Vessel Conversion

With no plans to work from MID oversaw a detailed 3D Laser Scan to provide an accurate 3D hull model, of a retired patrol vessel so that a new hull insert could be prefabricated for the vessel to be lengthened later in the year. Now in fit out stages the vessel is about to begin a new life as a private yacht.

Superyacht Replacement Keel

Once again with no plans available for the 25yr old aluminium keel of this sailing yacht and the keel badly corroded, laser scanning again helped produce an accurate baseline for the MID team to provide new production drawings for the prefabrication of a replacement keel, all with LR approval and a perfect fit.

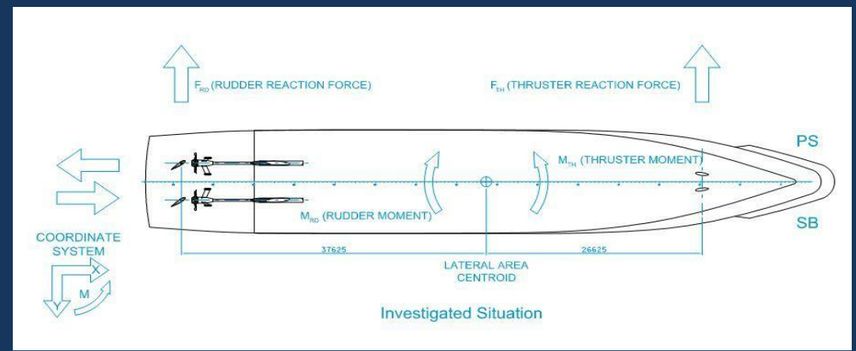


PB Sea-Tow and Rena Salvage

MID have been working for PB Sea-Tow in support of their operations on the Rena Salvage. PB are supplying one of their Barge's, an ST60, outfitted with 2 crawler cranes – 1 x 280tonne and 1 x 180tonne. MID provided stability calculations, barge ballast plans, layout drawings and crane lashing calculations and information. On-site survey and liaison with salvors, crane suppliers, crane engineers and consultant engineers was required. The ability to respond quickly to changing scenarios was key to providing a good service. To date this barge/crane combination has successfully offloaded up to 200 containers from the Rena

Preservation of Antique Paddle Steamer

Laser scanning again came into play to provide an accurate 3D model of the decaying hull to allow the design of a custom fitting dock to keep this historic vessel afloat. The new dock has been completed at the COSCO shipyard and will shortly be transported to California ready to receive the delicate hull during the next king tide



Naval Vessel Maneuvering Calcs

MID were tasked to review a Naval Vessel's maneuvering capability and to provide calculations for lateral movement capability. Forces from currents, wind and waves were derived and matched against a force balance undertaken for the available side thrust from bow thrusters and stern propulsion.

Projects

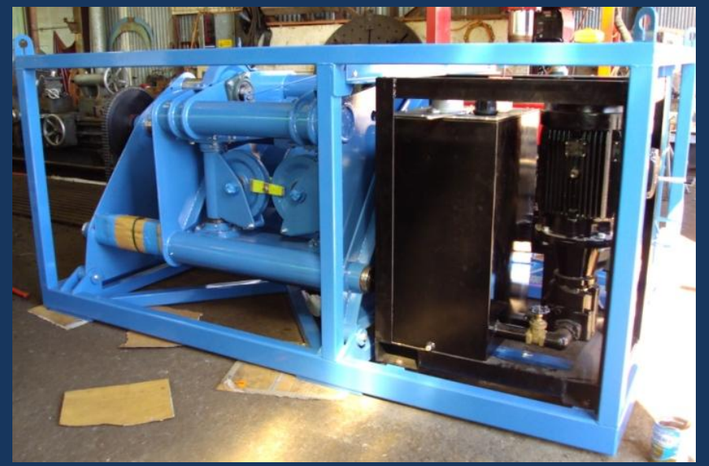
Private Yacht Heli-Ops conversion

MID was tasked with undertaking structural analysis and obtaining Lloyd's Register approval to ensure the existing sundeck onboard a private Motoryacht was of sufficient strength to satisfy LR rules for landing of a helicopter. The owner also required the ability to refuel his helicopter onboard the vessel. MID undertook the required design work to fit a fuel tank and refueling system within the confines of the vessel. An existing 24,000L water tank was partitioned into a 5,900L Jet A-1 helifuel tank in the aft end, a 12,055L Water tank in the fwd end, with the remainder of the space in between to be used as a cofferdam housing all the Jet A-1 pumping and filtration equipment.

Chemical Tanker Barge Conversion

MID was approached to provide design work for the conversion of a tank barge from its previous role as a fule bunker barge into a chemical tanker barge. This consisted of designing a complete new pumping and stainless steel piping system to replace the existing pumping arrangement and copper nickel piping, a central product loading/unloading manifold, a central operator control station, and new navigation lights to meet the requirements of the Colregs while still meeting the air draft restrictions for the barge to pass upriver below bridges to the terminal. MID was also contracted to complete an Inclining experiment and produce an updated stability booklet for flag approval.

Penstock Maintenance Winch



MID was approached by a New Zealand company who had been awarded the contract to recoat the internal surfaces of a hydrostation penstock pipe in Tasmania. The recoating project required blasting and painting equipment to be lifted through steeply sloping and vertical sections of the pipe with the longest pipe section over 400m and the last section having a vertical drop of 180m. The design required a fully self contained hydraulically operated winch, mounted within a transport frame with the hydraulic power pack and electrical switchboard. The blasting and coating process required the winch to have 3 different line speeds, selected via 3 different clutches which are all mechanically interlocked. As the blasting and painting operation required the equipment to be manually operated the winch had to be certified suitable for manriding operations with fail safe brakes, redundancy, overrides, communications and emergency systems to meet the Australian Standards