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Dockside

Babcock [NZ] Ltd Ship Repair and Marine Engineering News

June 2017

Welcome

I trust that 2017 is proving to be a good year for you and your teams

The last 12 months have been very busy for Babcock in New Zealand. Commercial docking projects have included passenger cruise ships; two Antarctic going vessels, as well as a super yacht and a major refit for a South Pacific based French Navy frigate. Our design consultant, Marine Industrial Design, has been active in supporting New Zealand marine projects, including vessel modifications and an interesting yacht slipping.

A common theme for our cruise ship and frigate projects, apart from challenging work packages, is that these vessels arrived with large crews and a considerable contingent of overseas specialists. This initially presented challenges in planning for work site access and safety but, thanks to excellent advance information and co-operation from customer project teams regarding work scope, both for Babcock and specialist activities, we were able to plan and deliver these significant projects safely and to schedule.

In this update, we have included an overview of these projects and other Babcock Projects in New Zealand

On a personal note, I will be retiring this year, with Mr. Chris Saxby, who hails from the UK, taking over the reins of Babcock (NZ) Ltd on 18 August.

Thank you for your support and co-operation. Our team looks forward to working with you on future projects.

Best regards,

Mike Wardlaw
Managing Director

Projects

Cruise Ship - Wind Spirit sailed from Tahiti to dry-dock

Wind Spirit, under classification with Bureau Veritas, re-positioned from her cruising base in French Polynesia to dry-dock with Babcock for 14 days during April.

She is a 134m LOA, 5,736grt, motor sailing vessel and can achieve up to 15.8 knots with prevailing winds and 10 knots with engines only, and made the voyage from Papeete to Auckland in 11 days. The critical task for Babcock's marine workshop was to remove the rudder and propeller shaft for survey and to assist the attending Wartsila technicians with installation of a replacement propeller oil distribution box. Other key dry-dock works included; steel work repairs; sea



valve surveys; overhaul and testing of life boat davits and high pressure water blasting and painting of the under water hull and boot topping. The overseas owner's specialists also attended the yard period, with the most notable being abseiling specialists who bravely climbed the four 62 metre high masts to check and repair stays and rigging. Two shift working was employed on steelwork repairs to minimise dry-dock time, enabling Wind Spirit to depart for Papeete as soon as possible.



For enquiries about dry-dock or repair, please contact Keith Drake, Business Development Manager, Commercial. Phone +64 21 922 335 or email: keith.drake@babcockinternational.com or shiprepair@babcockinternational.com

Cargo/Offshore Vessels operating in the South Pacific



mv TEK Ocean Spirit - undocking

Babcock have provided survey and hull preservation docking services in 2016/17 for a number of International commercial vessels operating along the East Coast of Australia and Pacific waters.

Work included a first intermediate survey docking for the 4,256 grt LPG Tanker Arago; a dry-docking for stern tube seal repairs for the 5,234 grt general cargo vessel Liloa; and a survey and repair dry-docking for the Australian based 87 metre, 2,775 grt offshore supply

ship, TEK Ocean Spirit. The Ocean Spirit proved to be an extensive docking with overhauls completed on the four Ulstein bow and stern thrusters. Port and starboard stern tube seals were renewed and the shaft and auxiliary generators were also overhauled.



Arago in drydock following hull cleaning

Antarctic Survey vessels making the trip to Auckland

Babcock have dry-docked two Antarctic mission support vessels this summer; the 133 metre, 5,825 grt, Italian flagged supply vessel Italica and the 6,174grt, U.S. flagged research vessel ice breaker, Nathaniel B Palmer. Each vessel required UT thickness measurements for the hull



Italica shell plating repair



Italica in Dry-dock, hull newly painted

renewal survey, as well as general dry-dock maintenance including; preparation and painting of the underwater hull and topsides hull areas and survey of sea valves and underwater equipment. For Italica, planned repairs to sections of side and forepeak shell plate were

also completed, including Polar Steel (EH36) purchased in advance by Babcock earlier in the year. Both vessels returned to Lyttelton, in the South Island, post dry-docking for final preparations prior to re-deployment on Antarctic projects.



Ice Capable Research Ship Nathaniel B Palmer

Hull encapsulation for motor yacht Vibrant Curiosity

The 85 metre Oceanco built motor yacht Vibrant Curiosity dry-docked with Babcock in October 2016 for underwater hull repairs and preservation, and for inspection of underwater equipment including; propeller shaft and rudders; hull anodes; anchor chains and lockers. To remove any risk of contaminating the yacht's topsides and superstructure whilst spraying the required Intersleek 1100SR antifoul coating system, the underwater area was encapsulated using scaffold and shrink-wrap. The encapsulation, hull repairs and coating preparation and application was completed within a 29 day dry-dock period.



Caledonian Sky completes second docking with Babcock

The 4,200 grt passenger cruise ship, Caledonian Sky, first dry-docked with Babcock in 2014. We were very pleased to dock Caledonian Sky for a second time, in December 2016, for a significant 15 day work package. Caledonian Sky, managed by Sweden's Salen Ship Management, arrived in Auckland following a Pacific cruise. Babcock's team joined the vessel in Port Vila, Vanuatu, for the five day sail to Auckland to commence removals and complete plate thickness measurement, in way of planned steelwork areas. Similar to Wind Spirit, double shifts and seven-day working was employed on steel repairs, including manufacture

of a replacement grey water tank, to minimise the repair period.

Other key activities included; replacement of stern tube seals; overhaul of anchor capstan, deck cranes, electrical motors and generators; inspection and repair of lifeboat davits and hull preservation and general pipework and outfitting repairs.

The crew of around 100 stayed on-board through the dry-docking, as did a team of around 50 of the owner's specialists, to carry out hotel refurbishments and propulsion control upgrades. Together with Babcock staff and subcontractors, there were around 250 people on-board



Caledonian Sky - stern repairs underway

ship each day. With excellent co-operation from Salen Ship Management and Ship's crew, we were able to manage the work flow and access for the different work groups, to complete the project safely and on schedule.

French Navy refit in New Zealand

Vendémiaire

Another vessel making a welcome return to Babcock this year was the New Caledonian based French Navy frigate Vendémiaire.

FNS Vendémiaire (first refitted with Babcock in 2014) completed a 16 week major refit period in May 2017. The extensive programme included installation of a new boat davit and a new water mist fire suppression system, together with a dry-docking and major refit work package. As for the 2014 refit, Babcock's contract for the refit was with French prime contractor DCNS.

The Harding type 6000kg SWL Davit and cradles were fitted to handle the vessel's RHIB type boats, with the installation requiring an extension to the original deck and supporting structure, new davit hinge points, new cradles and access platforms. The davit equipment and design was provided by DCNS, with Babcock responsible for the structural fabrication, mechanical installation and testing. Palfinger Marine, of Poland, attended to direct commissioning.

Design and equipment for the 'Hi-Fog' water mist fire suppression system was provided by DCNS, via DEF Marine, with Babcock responsible for mechanical installation. This involved, cutting access into the ship's hull, installing discharge and suction penetrations, as well as two high volume water pumps, and an 800ltr back-up pressure tank with nitrogen supply. Installation of over 830 metres of pre-manufactured stainless steel system pipework was installed throughout the vessel. Babcock's electrical workshop also assisted DEF Marine with the electrical and cabling installation.

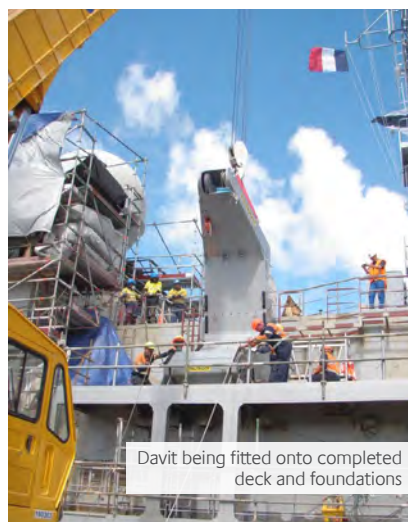


FNS Vendémiaire – about to depart for New Caledonia

Lesser installations included a Reverse Osmosis Fresh Water Maker; a new PABX cabinet and cabling; replacement oily

water separator; new galley equipment and water heaters. Maintenance activities included; overhaul of SEMT Pielstick 6PA6 L280 main engine; overhaul of port and starboard gearboxes and overhaul of bow thruster motor; preservation of underwater hull, topsides hull and helicopter deck; hull thickness survey; structural steelwork repairs and general outfitting and equipment maintenance and preservation works.

Since 2008, we have completed four French Navy vessel refits. With our growing understanding of French Navy's requirements, and excellent co-operation from DCNS, Babcock was able to complete this challenging project safely, to schedule and to quality criteria. Prior to departure, DCNS and the Ship's Officers were complimentary about the knowledge, workmanship and facilities available in Auckland.



Davit being fitted onto completed deck and foundations

MID have been involved in several significant projects this year, both for super-yachts and for the New Zealand navy fleet.

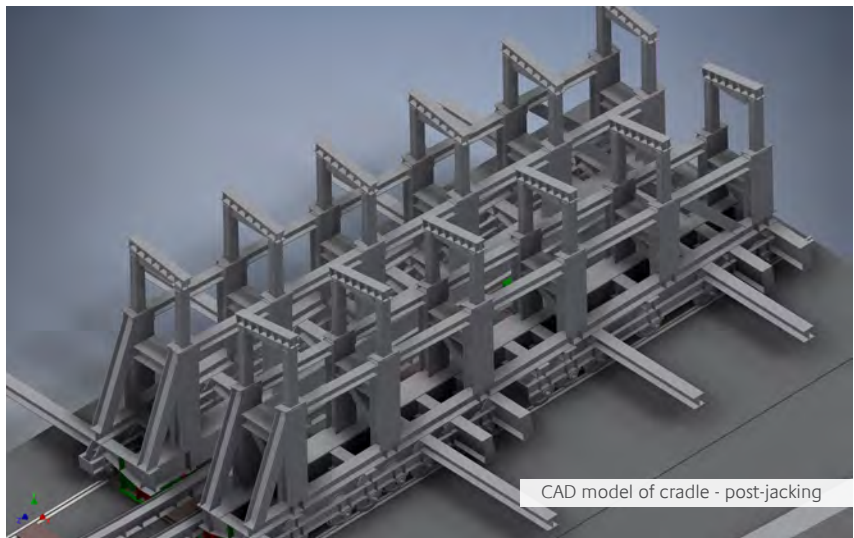
One of the super-yacht projects was for MID to design a cradle system for a 600 tonne 62m sailing yacht to be hauled on a New Zealand slipway. The unique challenge was to design a cradle that could allow the yacht to be jacked 1.5m in the air after the yacht was hauled out of the water. This was to allow for removal of the yacht's lifting centreboard keel which, in itself, was a 60 tonne, 10m x 3m blade.

A cradle structure was designed, with shaped beams on moving legs contained within fixed uprights, and a jacking structure provided for hydraulic jacks. The shaped beams were fitted to the hull shape using a laser scan of the hull (from an earlier haul out). The vessel was successfully jacked (by an Auckland specialist rigging contractor) using 14 synchronised single acting jacks. MID also provided the removal design for the keel.

Keel removal is underway as we write.



62m Sailing yacht hauled out - pre jacking



CAD model of cradle - post-jacking

For any enquiries or more information regarding MID contact Jason Smith, MID Manager MRINA C.Eng

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Co-operation with Original Equipment Manufacturers

Babcock's co-operation with MAN Diesel & Turbo continues, with Babcock technicians and fitters supporting MAN Diesel with engine servicing within Auckland and other NZ and Pacific Island ports. Other original equipment manufacturers based within the Dockyard and co-operating with Babcock include; Noske Kaeser Marine, McKay Electrical and McCraes Global Engineering.

Ship Repair and Marine Engineering Enquiries

If you are considering NZ docking or refit projects, or if you would like further information regarding Babcock engineering management services, then please do not hesitate to contact Keith Drake to discuss.

We are currently scheduling dry dock space from October to December 2017, and in February 2018, with dry-dock openings available from April 2018 onwards.

Babcock [NZ] Ltd

Mechanical Engineering | Fabrication | Outfitting | Electrical Engineering | Industrial Coatings
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Enquiries about dry-dock or repair can be directed to
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