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TALLERES INDUSTRIALES, S.A.

24/7 SHIP REPAIRS AND MARINE SOLUTIONS

MAGAZINE 18th Edition



MAIN FEATURES

AFLOAT HEAVY DUTY REPAIRS

Major Repairs to Propulsion System at Balboa anchorage – *In Progress*
PAGES 4 -6

KIRBY MORGAN CERTIFICATIONS FOR TALLERES DIVING TEAM

Talleres Keeps Investing in Human Talent
PAGES 7 - 8

FROM ZERO TO HERO

Engine room reconstructions at Cristobal
PAGES 12 - 14

TABLE OF CONTENTS

- 2 Lifeboat Services
- 3 Editorial – “Thank you Ruperto Rodriguez, more than 4 decades helping the world maritime industry”
- 4 Amazing Jobs- Afloat Heavy-Duty Repairs
- 7 People – “Kirby Morgan certification for Talleres Divers”
- 9 Our People - Who Is Who – Welding Foreman’s
- 10 Marine Solutions – 80 Ton Crane Barge Available at Balboa anchorage
- 11 Marine Solutions – ROV Hull Cleaning at Balboa Anchorage
- 12 Amazing Jobs – From Zero to Hero
- 15 Next Edition Preview – Coming up on our April 2022 edition
- 16 Environment – Talleres Code of Ethics



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LIFEBOAT SERVICES



TISA Lifeboats & LA Services, S.A. is a subsidiary company of Talleres Industriales S.A., dedicated to the inspection of lifeboats & safety devices, load testing of ship cranes and davits, and lifting apparatuses. For 16 years, Tisa Lifeboats has been performing annual and quinquennial inspections / certifications of free-fall Lifeboats, rescue boats, davits, and winches, (all tested according to the SOLAS Reg. 111/20-11 and IMO Circular MSC.1 /-Circ.1206 of May 2006).

Most of the inspections are done while at anchorage at Cristobal and Balboa, as well as in all ports in the Panama Canal area even during cargo operations. Due to our strategic location, our service engineers can travel on short notice to any country in Central America, South America, and the Caribbean. In Colombia, we have a field service station that can provide prompt assistance to any Caribbean or Pacific terminal in a cost-effective manner. Tisa Lifeboats guarantees the highest level of professionalism, ethics, efficiency, and reliability during the visits and services. Feel free to contact us 24/7/365.

“THANK YOU RUPERTO RODRIGUEZ, MORE THAN 4 DECADES HELPING THE WORLD MARITIME INDUSTRY”



Last month one of our long-lasting, loyal, and hardworking employees retired from Talleres Industriales. Rupert Rodriguez worked in Talleres for 43 years. Mixed emotions were felt during his farewell gathering.

Happiness was felt to see Rupert reach the top of his professional career in an honorable way at Talleres Industriales. Also, a taste of sadness was felt by watching Rupert leave after working with 3 generations of employees since the late 1970.

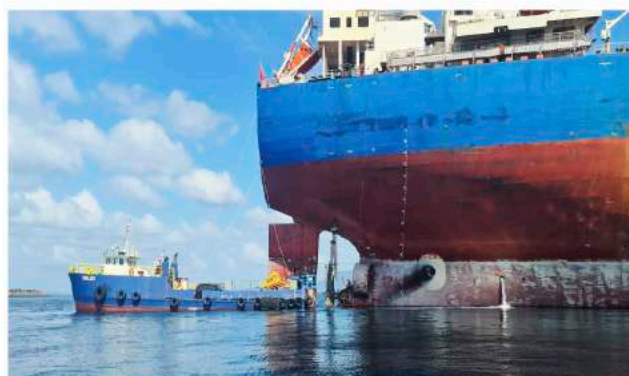
Ruperto added significant value to our organization and helped to get new talent up to speed. While working in the rewinding workshop he always showed passion, energy, and strong commitment to comply with our client's needs. Thanks, Rupert! for the inspiration, motivation, and encouragement you've given throughout the years to your peers. We know you will continue to inspire us for many more years!

AFLOAT HEAVY-DUTY REPAIRS – IN PROGRESS

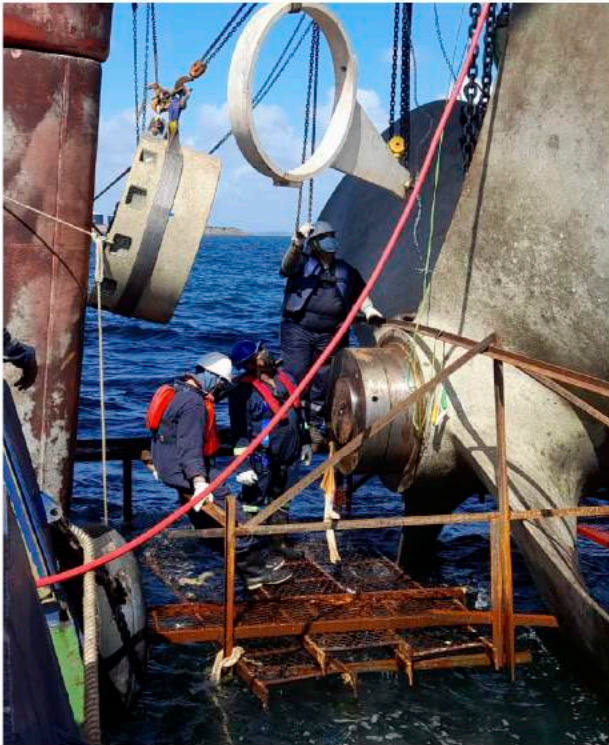


Extraordinary jobs are becoming ordinary and routinary at Talleres Industriales. At this moment, once again Talleres is performing a major propulsion repair at Balboa anchorage. These are typical jobs that used to be done only at dry dock and even there they are complex. On this occasion a 179938 tons DWT bulk carrier suffered a critical damage on its stern tube bearings of her propulsion system during her voyage from Asia to Latin America.

Owner's first option was not possible, since getting a dry dock for a Post Panamax vessel in the west coast of America is impossible mission. Owners approached many shipping companies in Central/South America, and some referred the job to us. Owners were not convinced since they were looking for a dry dock and didn't see possible performing job afloat.



At the end, we were contacted in their search for an alternative solution to repair their vessel. Once we introduced our company and informed about our experience, owners were gladly surprised to find out that Talleres Industriales has undertaken even more complex but very similar jobs on a Panamax vessel at the beginning of the pandemic, but this time the challenge was bigger, and the propulsion system was heavier.



Owners decided to perform the repairs with Talleres and place the formal order a few days prior vessel arrival Panama. Our first immediate mission was to procure two 50 tons pneumatic chain hoist to remove a 38-Ton propeller.

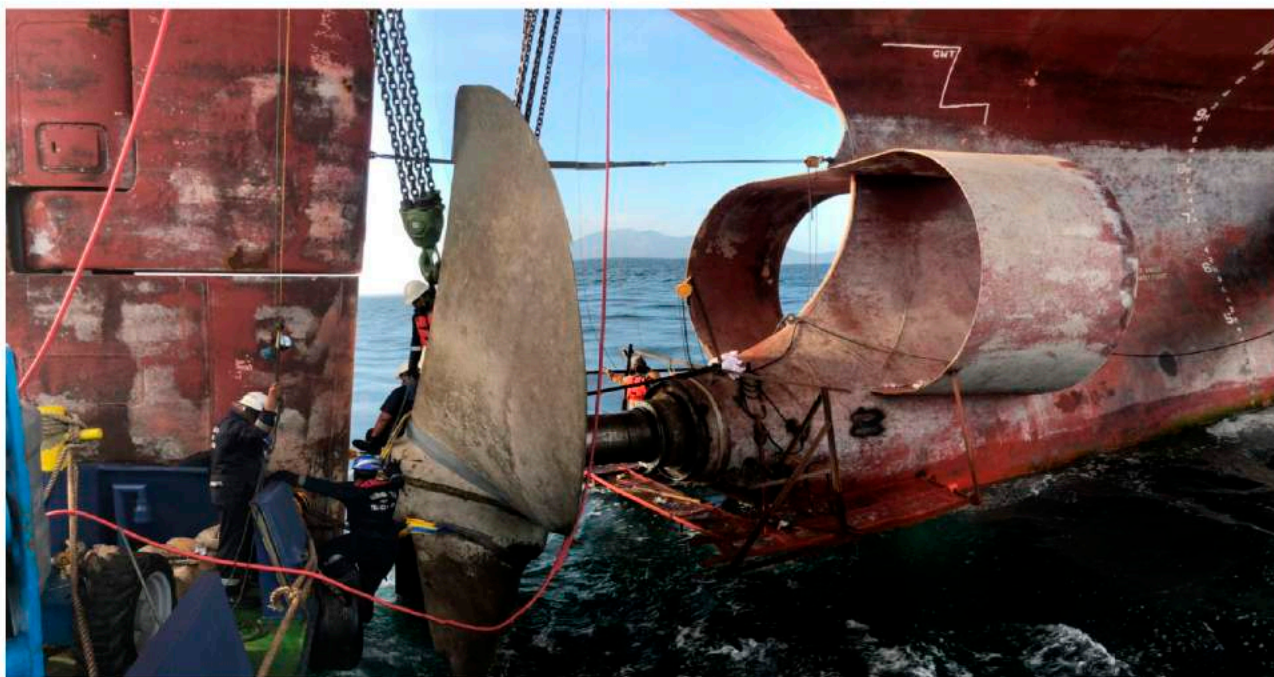
Our logistic department, which manages the most critical process in our company, flew chain hoist from USA and procured the rest of the floating, rigging, welding, and machining equipment to guarantee everything was ready prior her arrival.

Once vessel arrived, our engineers performed the initial inspection and once the vessel was trimmed and got the stern tube opening 0.5 meters above the water line, all necessary tasks were performed to remove propeller afloat.

TISA engineers inside the engine room removed platforms, piping, and items interfering with the intermediate shaft and in way of the Tail Shaft. In the meantime, TISA fitters and riggers removed the massive 38-ton propeller.

The Connecting bolts between the Intermediate Shaft and Tail Shaft were removed as well as the bolts between flywheel and intermediate shaft. Intermediate Shaft and Tail Shaft bearings were removed and placed in a temporary storage area inside the engine room.





The Engineers inspected the stern tube bearings and found the forward bearing with white metal damage and the aft bearing also with white metal damaged all around in all radial directions and fortunately the shafts were not affected.

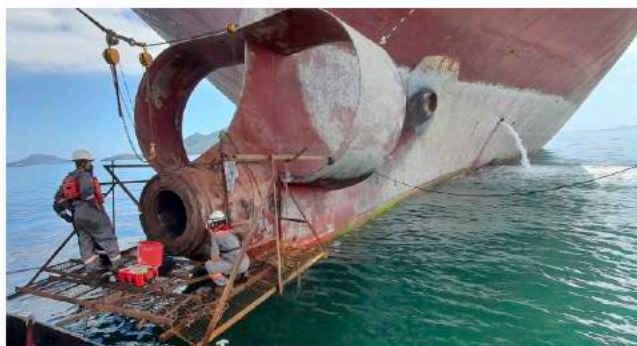
The Owners have been proactive and had order bearings from makers well in advance. We kept performing alignment checks of the inner bore of the Stern tube bearing with the flywheel with laser alignment tool.

Once final measurements were obtained, our team with the owner technical team defined the final bearing dimensions and our machinist contractor started the machining of the owner-ordered new stern tube bearings (forward & aft).

At the time this article was being written, we were undergoing the assembly process. This project needs to be completed ASAP to allow vessel to start trading.

As you can imagine we are undergoing a lot of pressure from all the stakeholders involved and we need to remain calmed and focused to complete this critical and delicate job.

As always, we will give the extra mile to achieve this goal complying with quality, safety, and meeting our client's expectation. This project is a one-of-a-kind repair and involved a lot of resources, expertise, and know-how. Talleres is a maritime solution company that performs ship repairs since 1969. No matter how big the challenge is, we will come up with a solution. To be continued...



“KIRBY MORGAN CERTIFICATION FOR TALLERES DIVERS”



This course was given to more than 40 staff members of our diving division. From Supervisors, Dive Techs, Divers to Tenders were trained and certified in our facilities in Colon.

The Helmet and Band Mask course was intended to teach Talleres' divers how to perform routine maintenance, annual inspections, and repairs of the same.

Talleres' highest priority is the safety of its people and therefore we will always provide all the tools, training, and mentorship to our employees and associates to expand their knowledge and safety awareness. Talleres Industriales keeps investing in its most important asset – “Its Human Talent”. Last month we successfully completed the Kirby Morgan Hat technician course.



The course that took place in our headquarters, instructed our diving team how to correctly overhaul the demand regulator side block and all associated Helmet and Band Mask components.

This course was set up to enable all our staff including our freelance divers to inspect, maintain, annually overhaul, and perform most repairs using the manufacturers' recommended procedures and guidelines.



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WHO IS WHO IN OUR TEAM



Josue Cardenas
Welding Foreman



Vicente Hernandez
Welding Foreman



Hector Gonzalez
Welding Foreman



Arcesio Sanchez
Welding Foreman

80 TON CRANE BARGE AVAILABLE AT BALBOA ANCHORAGE



We have added to our fleet a new crane barge for the Balboa Anchorage. The 80-ton crane barge Camila is now available along with our 23-ton crane barge Mr. Husband, and our strategic partner's 120-ton crane barge, which is now available at Cristobal's inner anchorage.



ROV HULL CLEANING AT BALBOA ANCHORAGE



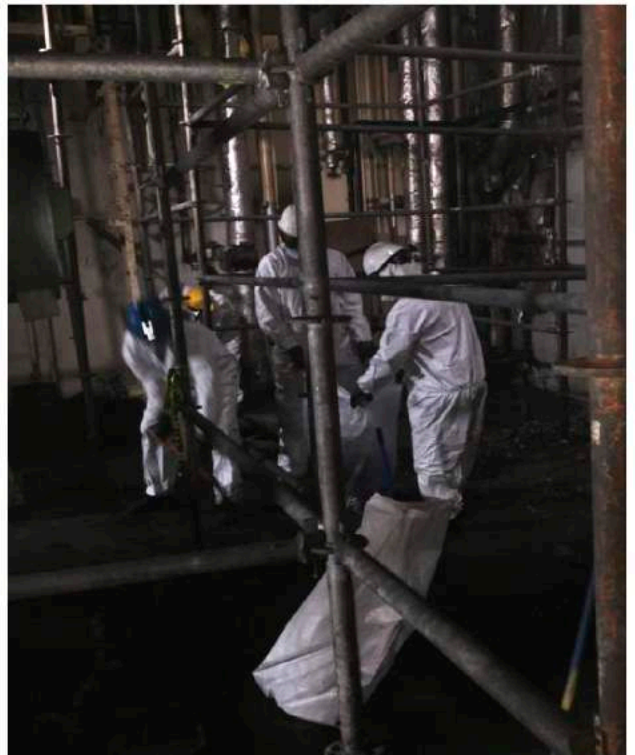
REVOLUTIONIZING UNDERWATER HULL CLEANING

Diver-free, cost-effective, and Environment friendly solution for underwater hull cleaning.

FROM ZERO TO HERO



This job could easily be known as the most challenging after-fire reconstruction of the Engine Room performed by TISA since it was funded. Why? Simply because it did not only involve low voltage cables but also medium voltage (MV) cables and systems. On this ship, the generators had a rated voltage of 6900VAC, therefore, we had to deal with something that was new to our team.





One of our workers was watching the news when it suddenly appeared that one ship caught fire while at berth, after cargo operations in a nearby port. In less than three hours, TISA's representatives were already onboard waiting to inspect the damages. Although inspection could not be done during the same day, TISA started contacting the owners and explaining the situation. Based on our vast experience we were already expecting a challenging job. At first, we thought the damage was not big in size, as only a certain section of the ship was severely affected. However, it was in this area that most of the cables passed through. More than 2,000 cables were renewed, requiring a length of almost 87 kilometers (line cables). TISA handled the entire job, from electrical jobs to CO2 system refilling. The most relevant jobs included cleaning of the damaged areas, welding repairs of the ECR flooring, thermal insulation restoration in 6 different areas, staging erection, and general mechanical services. In this article, we will mainly inform about the vast quantity of electrical jobs performed.

Following our procedures, our engineers started preparing a list of the affected cables and analyzing the ship drawings, encircling the affected systems. As soon as the cables were identified it was reported, cropped, and labeled. After this was completed, the list was shared in order to order the cables. Even so, a major challenge was MV cables. This represented itself another sub-project since these cables require special preparation, special testing, and special connections & consumables. After discussing with class surveyors and company superintendents, a decision was taken, and TISA was to handle this job as well. Testing kits approved by class were ordered and cable preparation was performed by our workers, supervised by a third party sent by our client. Later, new cables were tested using certified & approved equipment.





For this job different equipment were used such as three generators to power up different systems as well as temporary cables to operate the same. At the climax of the project, we had 111 electricians per day, performing the identification & renewal of cables, pulling and connecting cables in the new junction boxes, performing splices on power cables, troubleshooting repaired systems and so on.

A major key moment on this project was making the ship's generator's operation so it could be self-powered and not relying on so many external items. The project was handled step by step, following the sequence of repairing the most critical items at first in order not to delay the ship even more.

The list of critical equipment was handed by the ship and our job was to restore them. From fire alarm system cabling to navigation systems, all involved TISA's electricians.

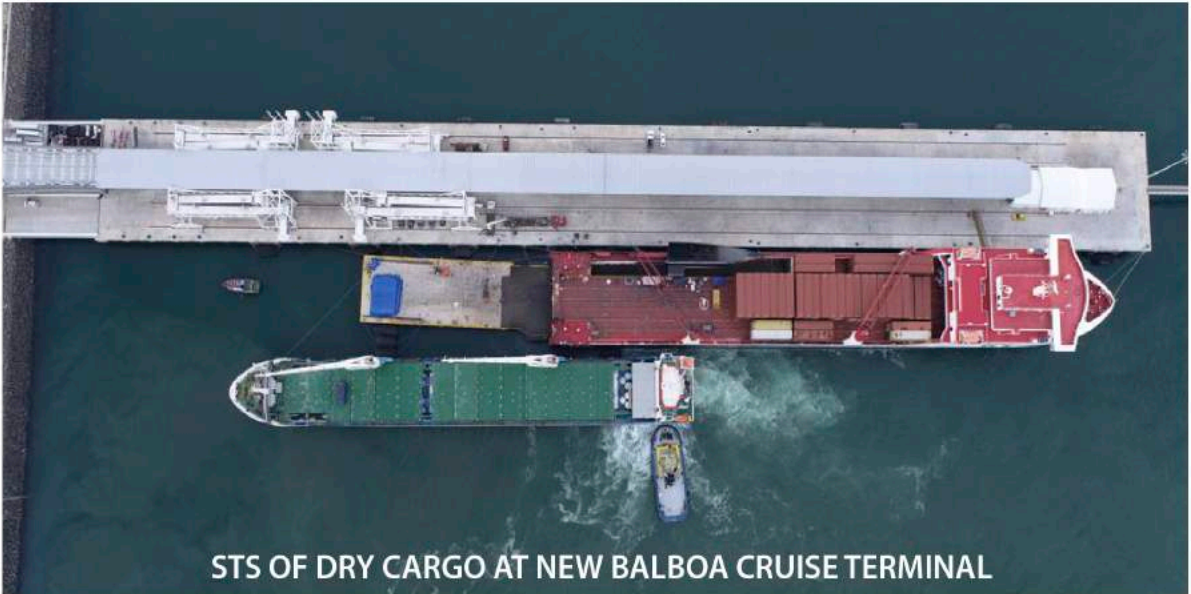
Decontamination and testing of transformers, cabinets, MSB, ECC, was also performed.

One of our main subcontractors oversaw the Automation System together with other companies such as Kongsberg and MAN for the ME. Earlier this year the ship was able to sail to its next port. The scrubber system was not completed during its port stay.

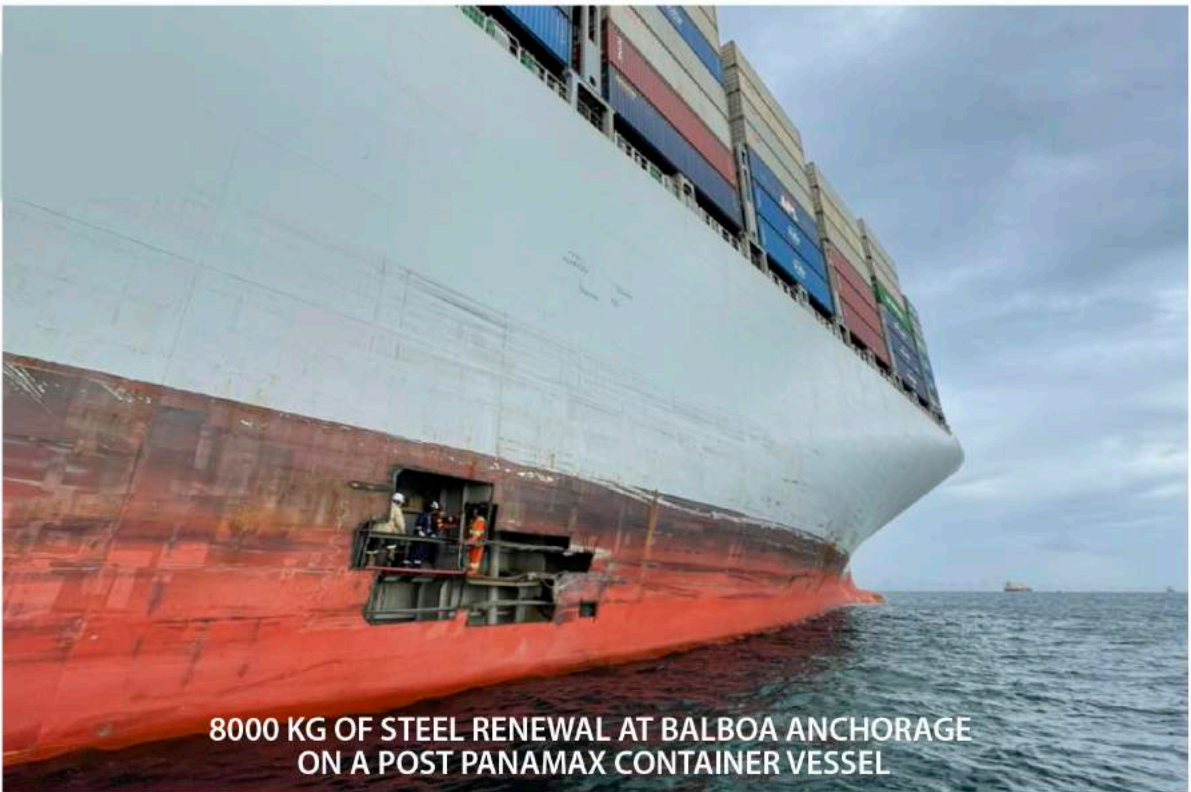
But TISA had the sense of responsibility in its mind and a team of 1 supervisor and 4 electricians sailed with the vessel as riding crew to complete the restoration of the system. After 22 days, the system started to be commissioned by maker's representative.

On this job, Talleres had demonstrated that literally everything is possible, that no matter how challenging a job could be, there will always be a way to solve it.

COMING UP ON OUR APRIL 2022 EDITION



STS OF DRY CARGO AT NEW BALBOA CRUISE TERMINAL



8000 KG OF STEEL RENEWAL AT BALBOA ANCHORAGE
ON A POST PANAMAX CONTAINER VESSEL

TALLERES' CODE OF ETHICS



**Starts
with Solid
Foundation
"Our Values"**

