

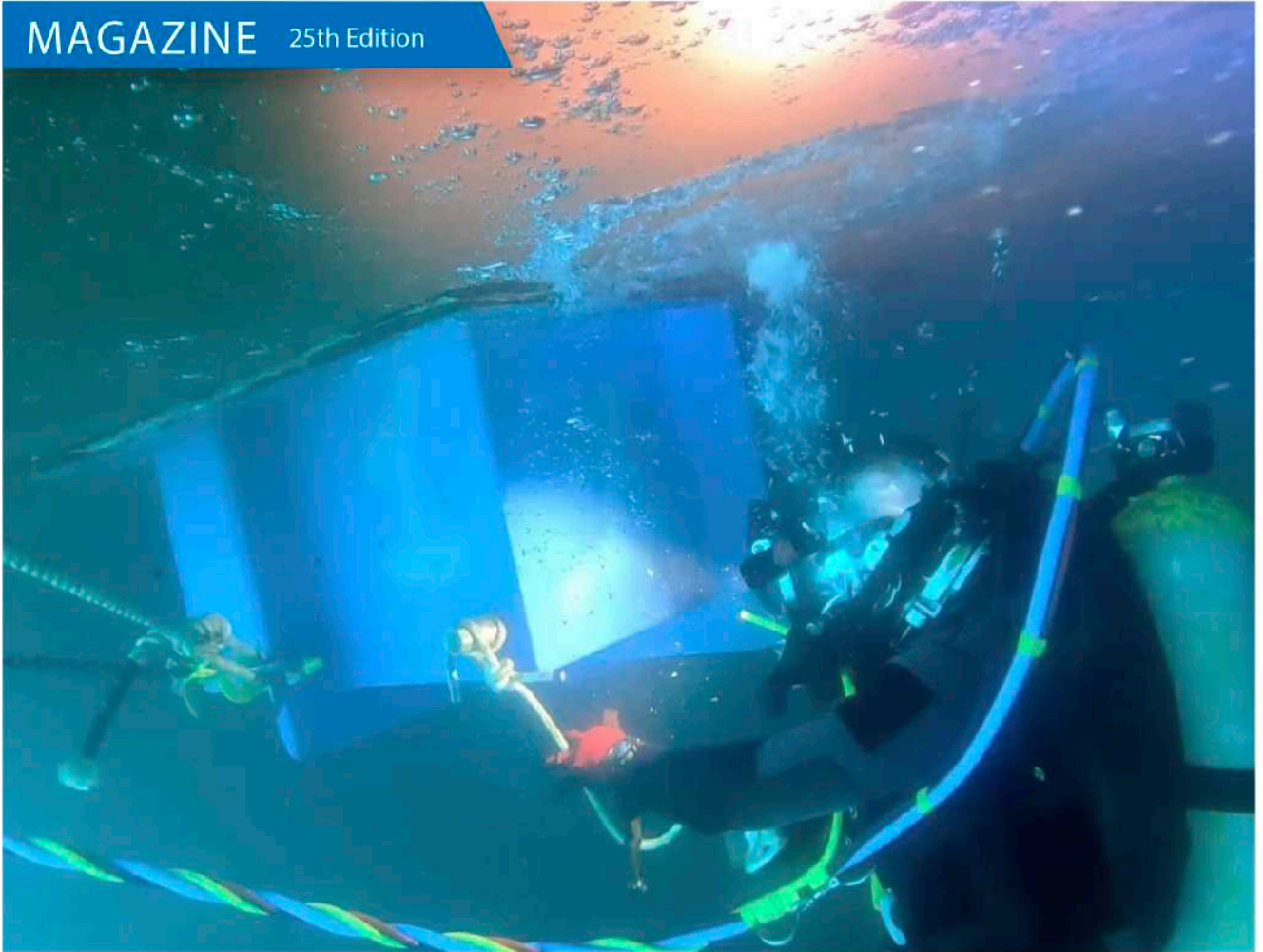


OCTOBER /2022

# TALLERES INDUSTRIALES, S.A.

24/7 SHIP REPAIRS AND MARINE SOLUTIONS

MAGAZINE 25th Edition



## MAIN FEATURES

**BREAKING RECORDS!  
PERMANENT FLAT BOTTOM  
AFLOAT REPAIRS  
16 COFFERDAMS**

No need for Dry Dock for  
Bottom Repairs Anymore

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**PERMANENT REPAIRS OF A  
JIB BOOM CRANE AFLOAT**

High Standards at Higher  
Levels

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**A MIX OF HEAVY LIFT, CIVIL  
ENGINEERING, MECHANICAL  
& STRUCTURAL TURNKEY  
PROJECT**

Major Heavy Lift Project

**In Process**

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## “CARING ABOUT OUR FUTURE”



The Pollution Control Division from Talleres Industriales is on alert and prepared to respond to all emergency oil spill calls from any port or bunkering operations on both sides of the Panama Canal. Our team can rapidly deploy in order to attend small spills to larger tier operations with experienced personnel in most areas in our country.

Talleres Industriales has in its inventory a large amount of oil spill equipment, materials, and consumables inside our strategically located contingency containers in numerous Panamanian port facilities. In addition, our division has oil spill response vessels and two oil skimmer boats positioned at the Panama Canal Area to respond to all types of emergencies, 24/7.



talleresindustriales -shiprepairs

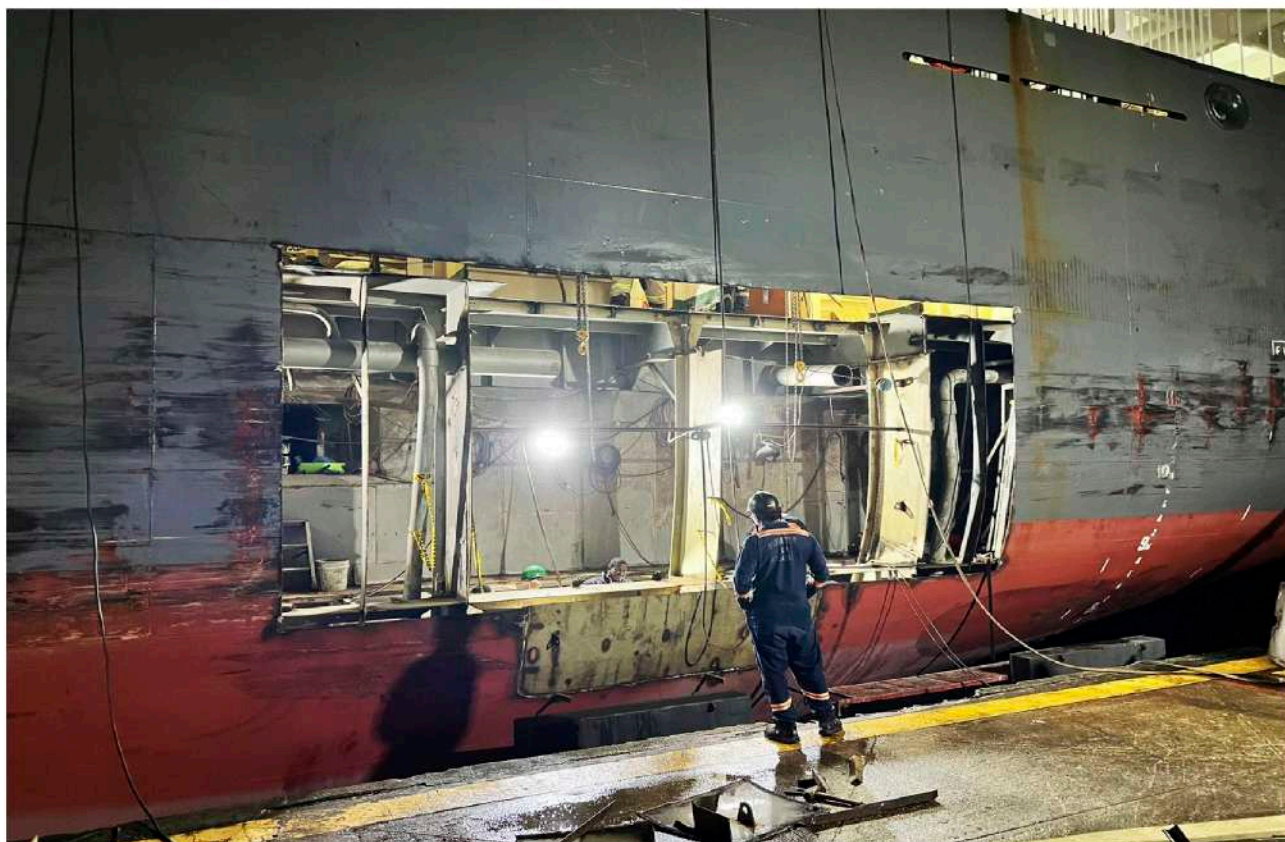


@talleres\_industriales



talleres industriales

## “THIS IS NOT ONLY A JOB, IT IS AN ADVENTURE”



It has been nearly 3 decades since I have been working in this emergency room of a ship's hospital. It is one of the most demanding jobs that any person involved in the maritime industry can choose from. I have the highest respect and appreciation towards all my colleagues in this industry who must have a great passion, love, and commitment for this job to make it their daily routine.

Long days, critical deadlines, physical and mental demanding effort, and the constant sense of urgency are some of the characteristics involved in our culture. Nevertheless, this job has its prizes and rewards. Here at Talleres we make the impossible seem like a normal task and we don't stop looking for solutions to our clients' challenges.

Talleres has a unique goal of making people around the world happy by helping vessels reach their destiny on time, by keeping vessels moving when in need of repairs. A common denominator of all our team in Talleres is that for us repairing ships is not only a job but also an adventure.

Lino Arosemena / CEO

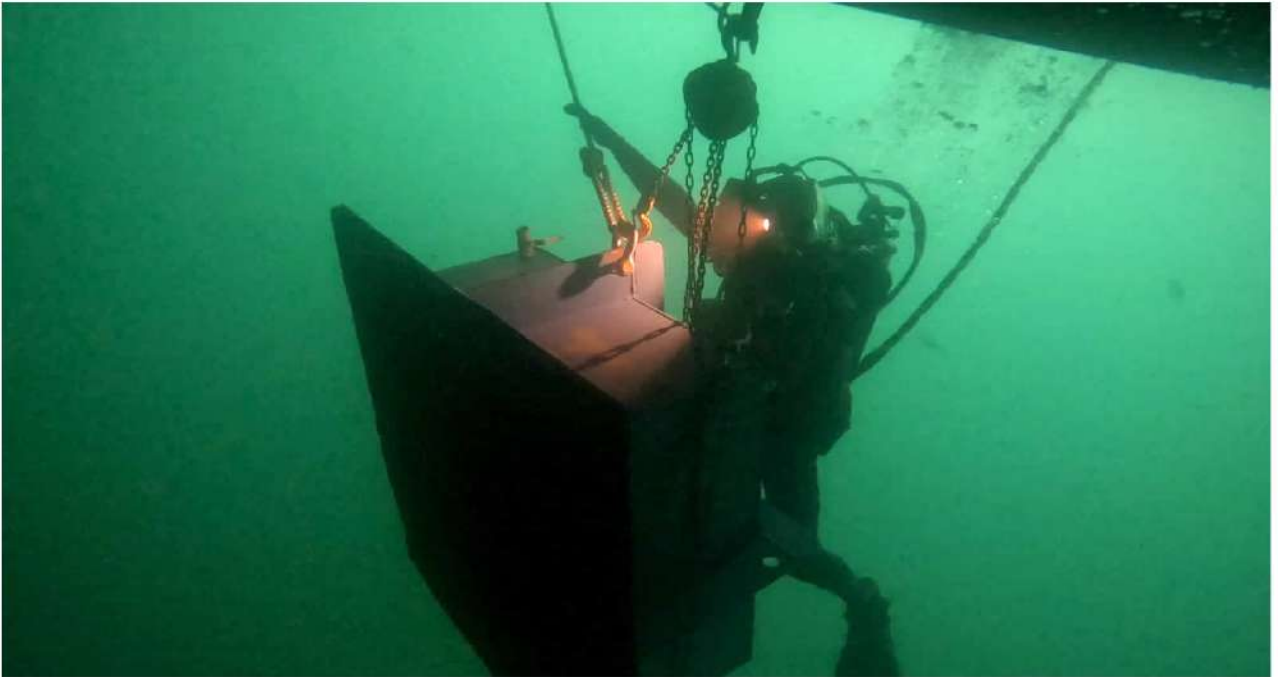
# BREAKING RECORDS! – PERMANENT FLAT BOTTOM AFLOAT REPAIRS – 16 COFFERDAMS



One more time, Talleres Industriales, S.A. divers team keeps breaking records. This time we had the opportunity to assist one of our customers' needs for an urgent bottom plate permanent



repairs in the way of the flat bottom caused by several cracks in different locations after the vessel arrived at Balboa Anchorage and during the waiting period for the Panama Canal Transit saving huge off-hire costs.



Our technical team reviewed the requirements and prepared an offer for permanent repairs with the vessel in afloat condition at anchorage with the use of cofferdams installed by the divers and from the inside our class approved welders with a full penetration welding procedure from one side using from our stock class approved certified high tensile new steel material for this purpose. On the vessel's arrival and during the set-up time, a team of Non-Destructive Techs boarded the vessel to determine the extension and number of fractures; in total 16 fractures in different

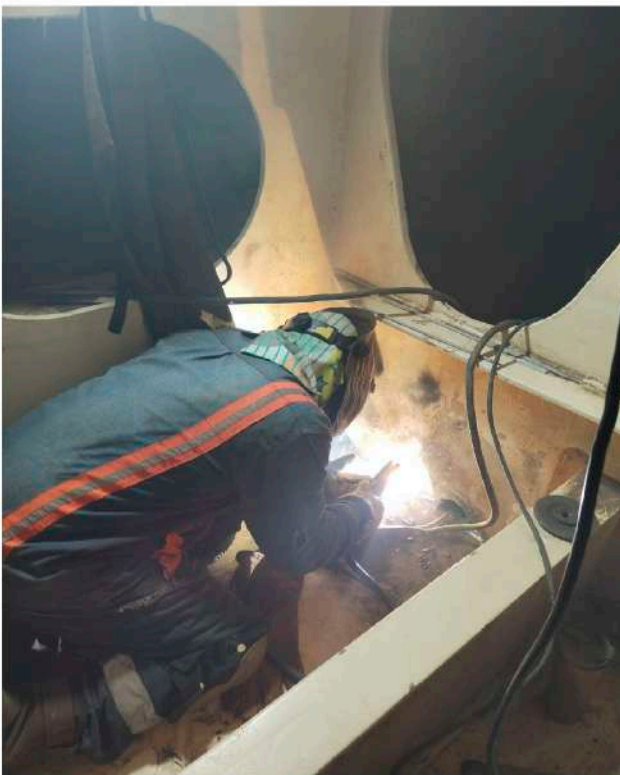




locations were found and the crop and renew process began with 4 diving teams and 2 diving support vessels in order to achieve the challenging repair schedule working around the clock in two shifts per day.

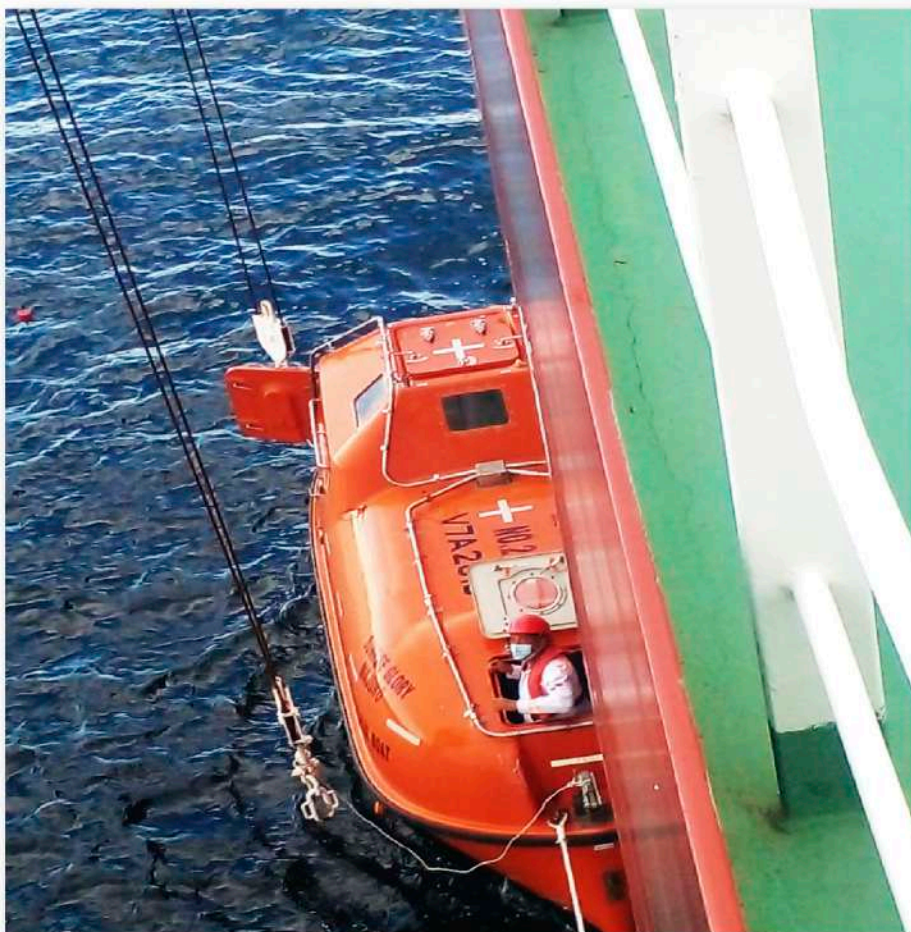


This project has involved more than 100 professionals between certified commercial divers and class approved welders. The repair was successfully completed as per class and the customer satisfaction within the repair period scheduled allowing the vessel to sail without interrupting her voyage program.

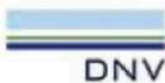




## THE BEST SOLUTION FOR YOUR LIFEBOAT INSPECTIONS



CLASS APPROVED COMPANY



# EXECUTIVE OPERATIONS MANAGEMENT TEAM

## “Leaders on The Battlefield”



**Alvaro Smith**  
Industrial Safety &  
Occupational Health Manager



**Ronaldo Brathwaite**  
Machining Department  
Team Leader & Project Manager



**Hector Rizo**  
Mechanical Department  
Team Leader



**Abdiel Vanegas**  
Project & Fleet Manager



**Milagros Martinez**  
Diving Division Coordinator



**Brian Castrillon**  
Project Manager



**Eric Arosemena**  
Project Manager



**Elicer Benjamin**  
Project Manager



**Jose M. Carrizo**  
Project Supervisor



**Tanisha Andrade**  
Project Supervisor



**Ricardo Jaramillo**  
Project Supervisor



**Alberick Camaño**  
Project Supervisor



# WASTE COLLECTION SYSTEM FINALLY IN OPERATION



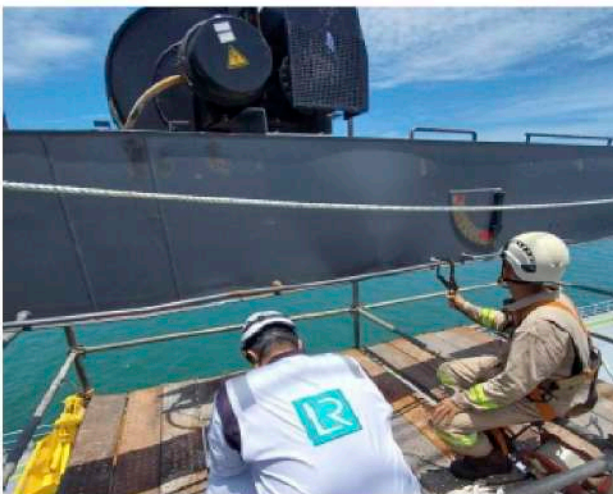
On the 22nd of September 2022, Marea Verde inaugurated Wanda Díaz, its autonomous river waste collection system with the support of Talleres Industriales, Wanda Díaz is a Baltimore, MD, designed and tested TrashWheel brought for the first time outside the United States to Latin America.

The system in Panama works with hydraulic and solar energy and adds an important step to its operation: it separates recyclable material from other wastes, closing the cycle of plastic waste management. Also, Wanda Díaz has a camera system to generate images and data that allow, through Artificial Intelligence, to analyze and categorize waste. In this innovative endeavor, TISA worked with Clear Water Mills, the creators



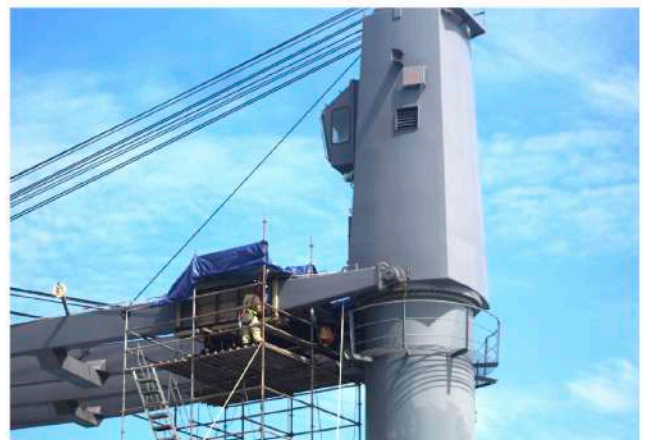
of the TrashWheel, to design and build the 52" long by 28" wide platform consisting of two floating pontoons and a waste container carrying barge, manufactured by Talleres Industriales and their 53 years of expertise in marine vessels repairs. Talleres support strengthens Marea Verde's mission to reach a cleaner Panamá.

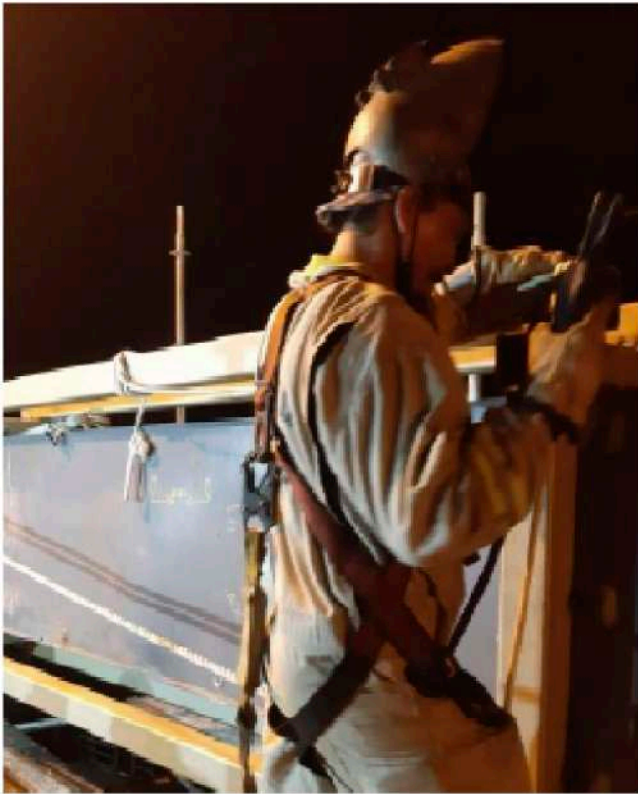
## PERMANENT REPAIRS OF A JIB BOOM CRANE AFLOAT



Once again Talleres makes an out-of-the-box permanent repair of a damaged jib boom crane during Panama Canal passage.

Last month, we got an inquiry from one of our clients in Singapore for an urgent crane repair of one of their Panamax bulk carriers during her stay in Panama.





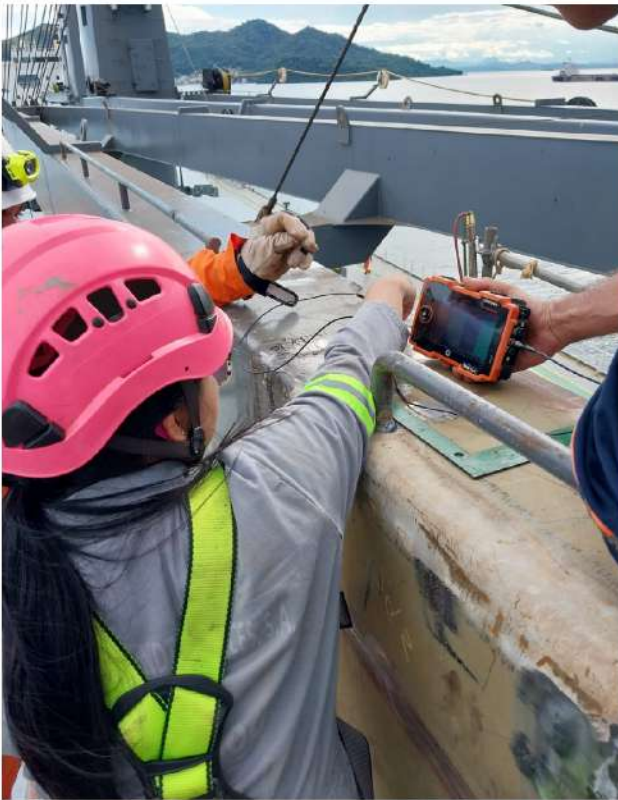
Once the vessel got into the inner anchorage, Talleres' engineers and fitters took all necessary measurements and alignment before starting the reinforcement of the boom on the section where cropping and renewing was going to take place.



As always, time was critical, and all certifications were needed. After getting approval from class on the repair plan, Talleres mobilized and started repairs on arrival at the Atlantic entrance of the Panama Canal. Installation of staging took place at Cristobal outer anchorage to validate measurements of the reported condition of the repairs to be performed.

As usual, Talleres encountered adverse weather conditions during the 24/7 repair period, therefore the highest safety protocols were enforced throughout the project. First stages of the repairs and most delicate ones were conducted at the Atlantic side of the Panama Canal.





Installation of tower staging, alignment, installing reinforcement brackets, cropping damaged sections were done before transiting. In the meantime, the new section was fabricated in our workshop.

Second and final stage of the repairs was conducted at Balboa anchorage after completion of transit. Same consisted of inserting and fitting new manufactured section of the boom, production welding using class approved welders and certified procedures. After completion of welding process, nondestructive testing of all welds was performed, followed by cargo load tests of jib boom crane with the use of certified water bags.



# A MIX OF HEAVY LIFT, CIVIL ENGINEERING, MECHANICAL & STRUCTURAL TURNKEY PROJECT



Heavy lift projects will always be seen as complex and risky. Dealing with hundreds of tons of weight is hard to imagine. However, thanks to our partnership, using the skidding process & mechanism we can ease the complexity of the process and each of the tasks to be performed during the same. This system was designed for precise and accurate position and transfer of heavy objects. The system is a no-brainer as it can be easily operated with help of double hydraulic system. A system for gripping and another for pushing and pulling. This guaranteed controllable and accurate position of objects while moving loads of more than 500 tons. The system does not require any special skid beam preparations and it has a low maintenance cost. Aside from the transferring method, our partners have the adequate vehicles for transporting these heavy load engines for long distances, the same are equipped with active hydraulic suspension mechanisms which make the loading and unloading simple.



## TALLERES AROUND THE WORLD!



After a four-year wait, TISA returns to a major international maritime fair exhibiting its services. This fair served to make face-to-face contact with our clients and partners. It also served to seek more opportunities in the industry lead by the new arising technologies, and of course to network, seek cooperation and forge alliances.

# COMING UP ON OUR NOVEMBER 2022 EDITION

## 7.5 TONS OF STEEL RENEWAL AT CRISTOBAL



## FINAL LOADING STAGE OF ICONIC HEAVY LIFT PROJECT





ALWAYS USE SAFETY BOOTS



ALWAYS USE HARNESS WHEN WORKING AT HEIGHTS



ALWAYS USE YOUR SAFETY HELMET

# SAFETY IS NON-NEGOTIABLE!



Safety is crucial for all our operations, and we are committed to having a safe and accident-free workplace environment. As one of our Core Values, safe behavior is non-negotiable in all our projects, our workshops, and onboard vessels.