



TALLERES INDUSTRIALES, S.A.

24/7 SHIP REPAIRS AND MARINE SOLUTIONS

MAGAZINE



MAIN FEATURES

RUDDER CRACKS FOUND DURING UNDERWATER SURVEY

afloat removal of rudder for permanent repairs
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UNDERWATER SERVICES WITH THE HIGHEST SAFETY STANDARDS

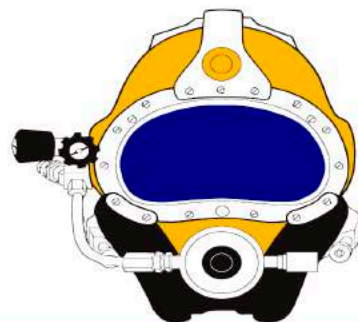


All our diving operations comply with ADCI Consensus Standards edition 6.3 section 5.40.6 "Ship Husbandry." All our operations are performed using surface-supplied air and two-way communication.

The use of self-contained underwater breathing apparatus (SCUBA) is **prohibited** in our commercial diving operations and projects.

We are committed to achieve the highest standard of safety and quality in our projects, complying with local and international regulations.

NO SCUBA IN TALLERES' OPERATIONS



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EDITORIAL



“A BUSINESS THAT MAKES NOTHING BUT MONEY IS A POOR KIND OF BUSINESS.”

We strongly believe in this quote. Our business is primarily about purpose and creating value for our stakeholders; money and profits follow suit, but it's always a collateral gain. Our performance should be evaluated in terms of our net contribution to our society by making sure all stakeholders are prioritized in our strategy.

We help our people become the best they can. Talleres provides constant training and a good and safe work environment while promoting ethical values in all our tasks.

We strive to be customer centric by making sure we provide our clients with a good experience, always exceeding their expectations. If our contribution can make them accomplish their goal, then our mission is accomplished. Talleres supports and is responsible with our suppliers and contractors, who are part of our ecosystem.

For Talleres its important to protect the environment in all the projects we perform, from underwater services to structural, mechanical, and electrical repairs onboard vessels and in our workshops.

We believe it is critical that businesses across all sectors address the three long-term megatrends forecasted to affect our future: rising population, resource scarcity and volatility, and climate change impact.

Our society is a reflection of our company. We need to help and push all institutions and authorities to make sure our community gets the best education and health system possible. “Education is the most powerful weapon which you can use to change the world.” Talleres' headquarter is in Colon, where we are one of the key employers. Part of our mission is to reduce poverty.

We employ people from marginalized groups, who would otherwise face barriers finding work.

Talleres aims to provide an opportunity to transform them into an effective labor force. Being responsible to all stakeholders in a business is not just the right thing to do, but the best thing to do.

Real success comes in from what you do and not what you get.

AFLOAT REMOVAL OF RUDDER FOR PERMANENT REPAIRS

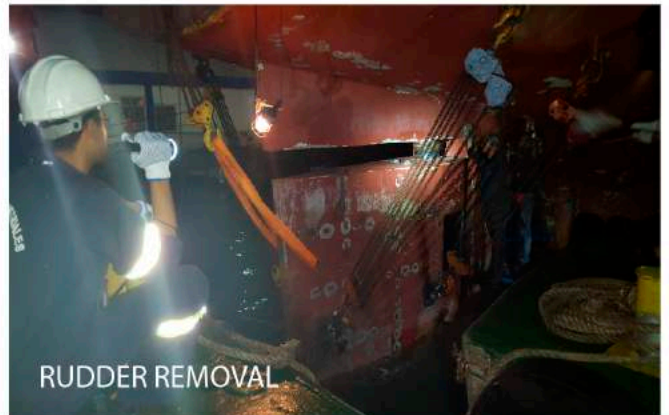


ALONGSIDE BERTH REPAIR

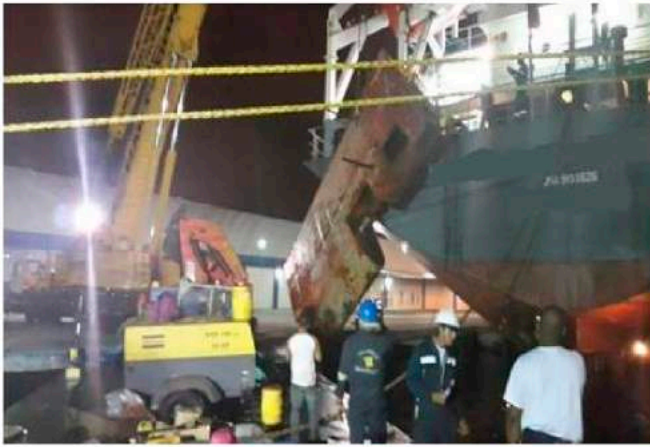
Talleres' Commercial Divers not only experience the daily routine of underwater surveys and maintenance services, but by being part of our organization they are also in close contact with our naval architects and engineers, as well as with our welding team and NDT technicians. This facilitates our divers the know-how to find cracks on a vessel's hull shell plating and deformations on welding seams.

This project started as a simple in-water survey, in lieu of dry docking under class supervision. During the inspection, our diving team found important fractures on both sides of the rudder blade of a German-owned LGP tanker. The cracks were just below the rudder's pintle, on cast steel material which needed to be renewed with pre- and post-heating treatments. Due to the extent of the cracks, the class requested permanent repairs.

The owners started looking for a dry dock, but we proposed afloat repair alternatives to start the job immediately. We provided two options – the removal of the rudder blade at berth, or the installation of a cofferdam around the rudder in anchorage. After an open discussion with the client and the insurance company, we decided to perform the removal of the rudder at berth and transport it to the workshop for permanent repairs.



RUDDER REMOVAL



Once alongside, all the resources arrived to perform the job in record time. Our diving team, mechanics, welders, and riggers worked simultaneously, securing and removing the rudder in less than 36 hours. Once in the workshop, the rudder blade's fractured sections were cut, and with a special welding procedure

Please visit our new website and social media for Talleres first documentary of the Amazing Projects series



INSTALLATION OF RUDDER BLADE



FINAL ADJUSTMENTS OF THE INSTALLATION

and pre-/post-heating processes, the new 20mm inserts plates were welded in.

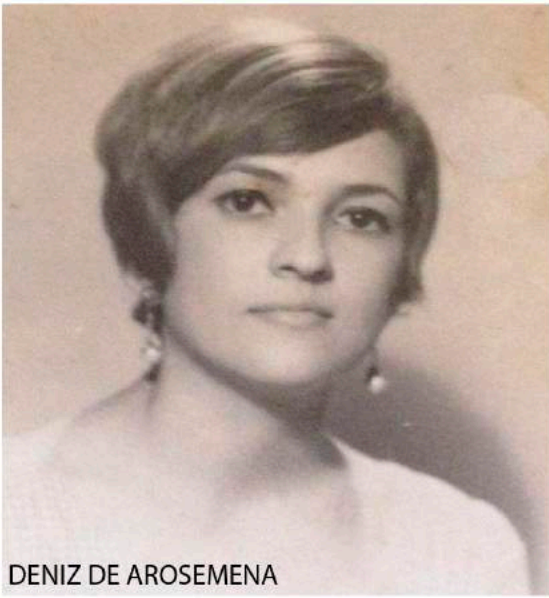
When the repairs were completed, vacuum-box and dye-penetrant testing was performed on all new welds. Our team then executed the installation while maneuvering the rudder blade into position under adverse weather conditions. The reinstallation of the rudder was completed in record time and to the client's satisfaction.

Talleres is used to work under the highest levels of pressure and stress, around the clock, always meeting the demanding expectations and requirements of the class and our clients. When you have a difficult case, no matter where your vessel is, contact us for advice.

VISIT OUR NEW WEBSITE
www.talleresindustriales.com

HONORING OUR FOUNDERS

The Journey started in 1969



DENIZ DE AROSEMENA



RAFAEL AROSEMENA



BARGE DOÑA DENIZ



CREW BOAT DON RAFAEL

A company's success has everything to do with its people, culture, and leadership. Talleres' leadership for the first three decades was under our patriarch Rafael Arosemena Herrera, who has been the backbone and defined the '24/7 ship hospital emergency room' business model. But furthermore, a man's success has a lot to do with the kind of woman he chooses to have in his life. Even though Deniz has never been directly involved in the

company's operations, she has always been supportive of our patriarch and Talleres' employees. We feel proud of them and thank them for all the effort and sacrifice that have resulted in us being here now and running the show.



www.talleresindustriales.com

"BEHIND EVERY CHALLENGE, THERE IS A GREAT STORY"

DRY DOCK AT SEA



Cover page of the American Salvage Magazine, December 2020

Film during the Covid Pandemia and World shutdown

Don't miss the first Documentary of the Amazing Project Series

Victor Espino, Hector Rizo, Juvenio Pizza, Sergio Burke, Marcos Ardines, Eduardo Parra, Ibrahim Sanchez, Horacio Patiño, Hector Rizo de Hoyos, Antonio Beitia, Constantino Adames, Cristian Herrera, Constantino Bonilla, Marco Palacios, Carlos Pimentel, Carlos Simoes, Tisa Supplier crew, Talleres Support Staff

December 9, 2020

WHO IS WHO IN OUR TEAM



Ronaldo Brathwaite
 Project Manager onboard
 Machinist Department Supervisor
 Expertise – Machinist, Mechanical, Turbo, In situ machining, Rigging



Ruperto Rodriguez
 Project Manager onboard
 Electrical Department Supervisor
 Expertise – Electrical, Rewinding, Power Pack Rental, Rigging



Hector Rizo
 Project Manager onboard
 Mechanical Department Supervisor
 Expertise – Mechanical, Turbo, Cranes, Rigging, Load test



Victor Vargas
 Project Manager onboard
 Welding Department Supervisor
 Expertise – Welding, Fabrication, Piping, Rigging

LIGHTERING OPERATION FOR BULK CARRIER AFLOAT TRANSFER OF 1200 TONS OF COAL IN PANAMA CANAL'S GATUN LAKE

It is very common to have a fully loaded vessel arriving at the Canal with an overdraft due to lack of communications and updates of the maximum authorized drafts by the Panama Canal Authority. In such cases lightering is undertaken to reduce a vessel's draft so it can continue its transit without further delays and financial impact. Depending on the amount of cargo that needs to be unloaded, corrections can be accomplished by removing bunker fuel (debunkering), or if is not enough, then cargo would need to be unloaded from the cargo holds.

During this emergency job, a 58,000 Supramax Bulk Carrier needed to unload 1200 tons of coal to achieve the required draft. Talleres was called by the owners to come up with a fast solution since the charterers were planning on returning to Colombia to unload the cargo. Talleres had all the necessary resources on hand and was ready to accomplish the task. We transited our fleet and equipment from Cristobal to Gatun Lake through the locks: deck barge with bin walls, push boat, fenders, bobcat, illumination and lightering gears. Our team of stevedores was standing-by ready and, once alongside, started transferring the cargo to our barge immediately. In less than 24 hours, the cargo transfer was completed, and the draft was accomplished, enabling the vessel to continue its transit. A few hours later, we transited behind the vessel to Balboa for our team to reload the cargo. All stakeholders involved were pleased with the prompt attention and positive results.



BULK CARRIER COLLISION WITH THE TRANSOCEANIC RAILROAD BRIDGE

Underwater Repairs of a Hull Flat Bottom Plate in a Forepeak Tank



During the month of June, we were contacted by our customer's Technical Manager regarding a 37,332 tons bulk carrier.

The vessel suffered a major underwater damage on its bulbous bow, forepeak tank, and bow thruster compartment after a collision with the transoceanic railroad bridge's main pillar (a 500 tons base structure) inside Panama Canal's Gatun Lake.

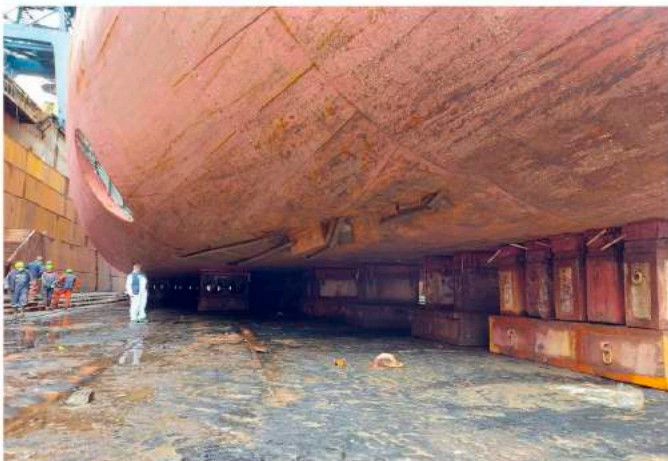
Our experienced engineers boarded the vessel immediately, along with the insurance and class surveyors, to determine a work plan to be performed after mobilizing the vessel to Cristobal inner anchorage.

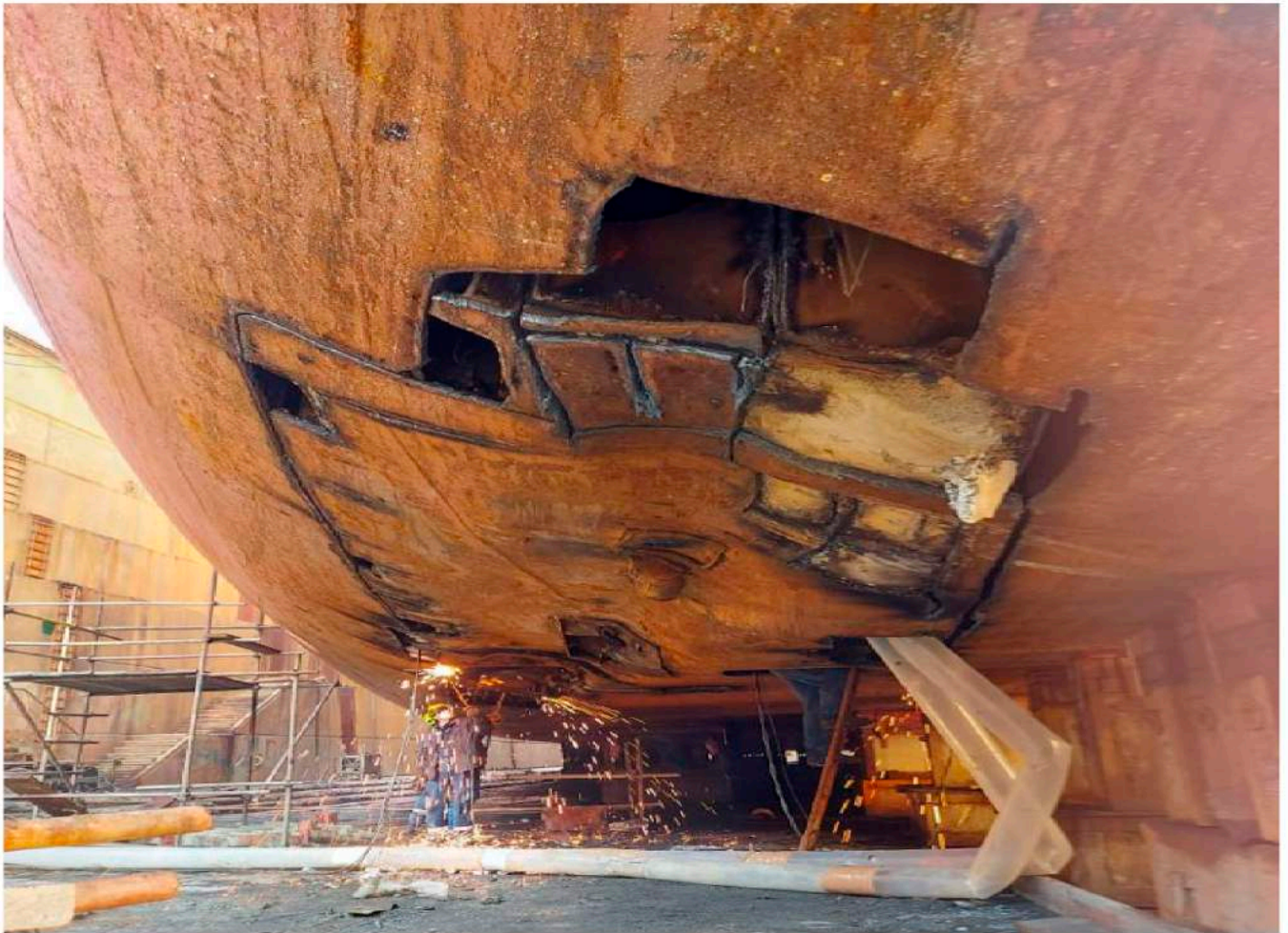


The approved proposal consisted of making arrestor holes to the five ruptures and sealing the damage hull plating. This was accomplished by fitting and welding underwater doubler boxes, custom-made as per the deformed shape of the hull.



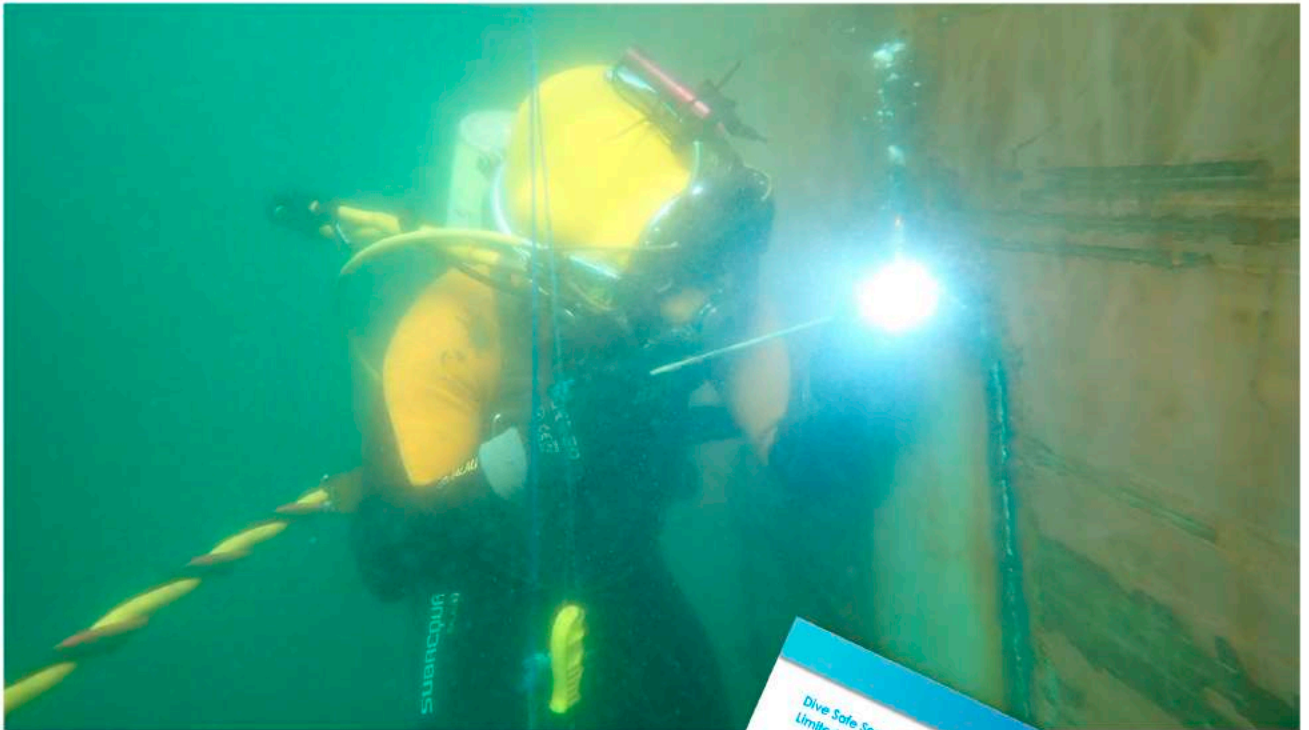
A total of 82 steel elements were fitted, as longitudinal and transversal reinforcements, in the collapsed structure of the forepeak and bow thruster compartments. The vessel was moved alongside the repair berth to pour approximately 11 m³ of concrete to reinforce the collapsed compartments, the deformed areas inside the confined space, and the flat bottom plate.





The repairs were completed to class and designated local superintendent satisfaction. The vessel continued its voyage to North America to discharge its cargo. Once in dry dock, the owners shared some pictures of our job in high & dry conditions. All steel structures welded underwater remained intact and watertight.

Please visit our new website and social media for Talleres first documentary of the Amazing Projects series



UNDERWATER SERVICES WITH THE HIGHEST SAFETY STANDARDS



TALLERES INDUSTRIALES S.A.



5000KW OF RENTABLE POWER AT YOUR DISPOSAL



Talleres Industriales S.A., Keeps Investing in the Maritime Industry of Panama

Our generators comply with all class and safety regulations. Our units range from 200KW up to 1000KW, can be mobilized 24/7, and can be connected in a short time to manage the temporary energy supply of a ship or maritime platform, in any port of the Republic of Panama, Central and/or South America.

Talleres Industriales S.A., a company operating for more than half century, has a great commitment towards Panama, so it will continue its Investment Program to guarantee the employment of the Panamanian professional workforce. We will always look to add value to our clients, improve the local and international industry, and guarantee the reliability of our work.

CLASS APPROVED COMPANY



**IF WE WERE TO BE A CARTOON CHARACTER WE
WOULD DEFINITELY BE THE ROAD RUNNER!!!**



**"FAST,
FOCUSED,
SAFE,
EFFICIENT"**

Ron Delvino 6-12-20

SAFETY ALWAYS COMES FIRST!

