



AUGUST /2022

TALLERES INDUSTRIALES, S.A.

24/7 SHIP REPAIRS AND MARINE SOLUTIONS

MAGAZINE 23rd Edition



Lifeboat
Inspections
& Services.

MAIN FEATURES

UNDERWATER SERVICES AT OFFSHORE STATION

Inspecting the Buoy Mooring System of the Trans-Isthmian Pipeline at Chiriqui Oil Storage Terminal

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MAJOR BACK-TO-BACK CLEANINGS AT BOTH SIDES OF THE PANAMA CANAL

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TALLERES OFFERS NEW 3D SCANNING SERVICES



Talleres keeps investing in new technology and will offer a new service that responds to the needs of 3D scanning markets. Talleres will focus on the following services:

- Exhaust Scrubber Integration & Feasibility Studies
- Ballast Water Treatment System Integration & Feasibility Studies
- Engineering for Structural Repairs (including on-site coordination)
- Remote inspections

Our new equipment creates accurate, complete, and photorealistic 3D representations of any environment or object in just a few minutes, and with a new software (AsBuilt), our engineers will have the capacity to create drawings of existing equipment, pipes, or structures.

Our New Laser scanning Focus L70 ships is easy to operate and offers built-in protection from dirt, dust, fog, and temperature (0 to 40°C).



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STRATEGIC ALLINGNMENT SESSIONS, OUR SOURCE TO PROMOTE INNOVATION

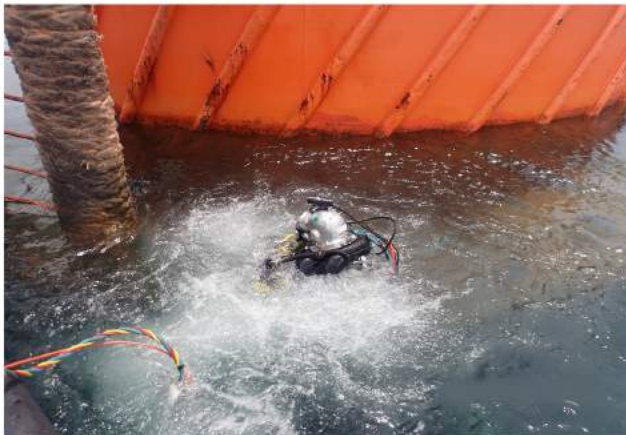


During the month of July, we performed our biannual strategic alignment sessions with all the business units that are part of Talleres Industriales, with the purpose of analyzing and defining key factors to promote innovation and continuous improvement.

The Canvas Business Model has been our strategic tool to project the future and make relevant decisions that support our brand-new business units as well as the existing ones.

In a changing world where competitive advantages do not last for long, it is essential to get together as a team, to think out of the box, to formulate powerful questions that challenge us, so that we can anticipate changes and develop solid value proposals to face the demanding markets that we are into, and attend clients who deserve the highest international service standards.

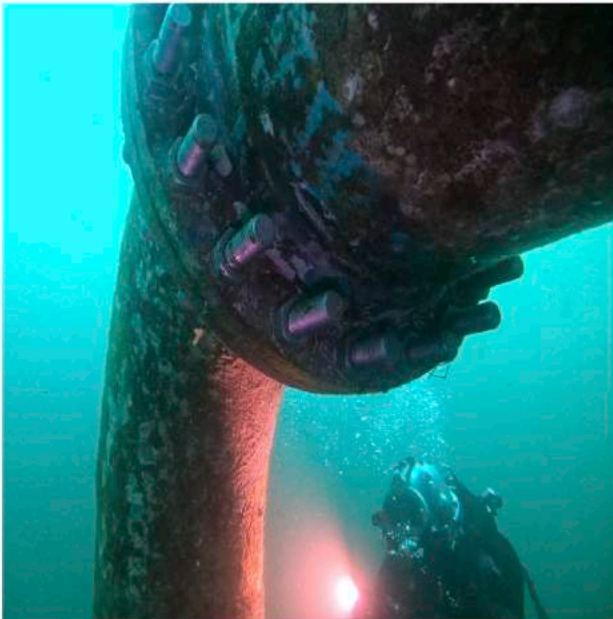
UNDERWATER SERVICES AT OFFSHORE STATION



On this occasion we were contacted by a long-term client to perform a detailed underwater survey on the two Buoy Mooring System of the Trans-Isthmian Pipeline at Chiriqui Grande Oil Storage Terminal.



Besides our daily attendances on ship husbandry in the Americas, Talleres diving division also works on power plants, hydropower infrastructures, mining industry, and offshore platforms upon request.



This pipeline is the one that takes product from the Pacific side to the Atlantic side of the Americas.



All connecting bolts were inspected one by one to make sure all were properly tightened and secured. Job was completed in two days and a full report was submitted to the customer.



Our Certified Commercial Divers following all safety protocols performed underwater ultrasonic thickness gauging of pipes as well as underwater magnetic particles destructive tests on specific points. They also performed surveys on the hoses, couplings, and flanges of the pipeline system.



Talleres is proud to assist the marine industry in any request to make sure the world economy keeps moving forward.

SEA WARS

COMBATting BIOFOULING AT BALBOA ANCHORAGE



Eco-friendly, safe and efficient hull cleaning services
at the Panama Canal.

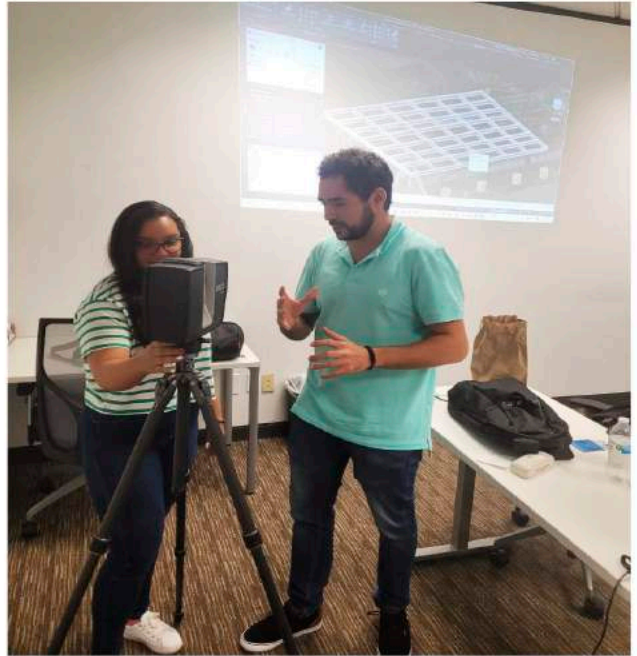


TALLERES INDUSTRIALES
24/7 Ship Repair

TRAINING COURSE FOR 3 ENGINEERS AT FARO FACILITIES ON 3D SCANNING



Last month, 3 of our young engineers visited FAROS facilities in Houston to train on the use of our new investment - FARO FOCUS 70 laser scanner. Our new equipment works by sending an invisible laser beam into a rotating mirror that deflects the laser beam around the environment being scanned. With 360° range and +/-0.2mm accuracy at 10m, the laser scanner captures full coordinate information for a cloud of points on every surface the laser hits. It also documents each scan location with color images. By taking multiple scans from different locations the combined data can be a useful reference for large objects or complete areas with multiple rooms. This scanning process will change how you think about ship checks and 3D documentation. Here are just a few ways we are using this technology:



- Refurbishments and extensions
- Feasibility studies for EGCS/BWTS Systems and Chiller Systems
- Detailed Engineering
- Installation Support for New Systems & Equipment
- As built drawings and documentation
- Tank volume calculations
- Tank inspections



TALLERES, DNV APPROVED WORKSHOP

This recognized certificate proves that Talleres Industriales SA operates with certified production facilities and working procedures as well as qualified personnel.



To guarantee high quality jobs on all the important parts of ships, maritime installations, and their components, DNV rules require that welding jobs be carried out by approved companies or workshops.

The DNV rules are based on relevant international standards, best practices, and long-standing experience of experts. Talleres was audited and recertified two months ago in our continuous pursue of excellence.

MAJOR BACK-TO-BACK CLEANINGS AT BOTH SIDES OF THE PANAMA CANAL



The large capacity tanks required to be ventilated for over 24 hours before the safe entry of our inspection team and cleaning personnel was granted.



At Talleres Industriales, S.A. (TISA), our tanker vessel clients frequently request the tank cleaning service for a change of fuel oil product, general maintenance of the vessel or class inspection.

The scope of the job on both tankers at each side of the Canal simultaneously was to remove the heavy sediments and remaining fuel oil residues from the bottom of twelve cargo tanks and two sludge tanks.

We accomplished this primary task by placing our industrial ventilator on the deck and installing plastic ducts to each of the tanks. Once the tanks were properly ventilated, our safety officer, along with a certified marine chemist, took oxygen and gas level readings and gave us a green light to start the job.



Our on-duty safety officer must always continue to monitor the tank with a portable multi-gas detector and take note of every worker who enters and exits the tanks.

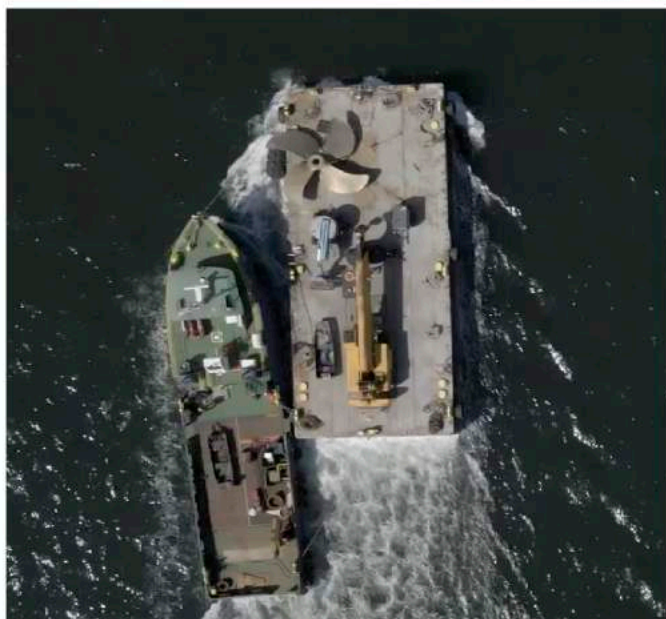
The cleaning job required two 12 hour shifts every twenty-four hours. The team worked on the bottom of the tanks with shovels and action hoes to push and pull approximately one foot height of heavy sediments into open 55-gallon drums.



The other areas which required special cleaning were the tank bell mouth and the surrounding bulkheads. The team was also instructed to clean the heating coil pipe of all residues. Both vessel owners required us to complete the job as quickly and safely as possible, to be able to reach its next charter destination for new cargo. TISA was able to accomplish the task one day before the planned schedule. The tank cleaning team is always ready to perform this difficult job with the highest of safety standards and supervision.



FLOATING EQUIPMENT TO SUPPORT OUR MISSION 24/7 AT BALBOA AND CRISTOBAL ANCHORAGES



Talleres is not only a ship repair company, but we are also ship operators and that enables us to understand the needs, pains, and joy of our clients.

We have the following equipment to support our operations and to add value to the Marine Industry in Panama:

- Supply Boats
- Diving Support Vessels (DSV)
- Lightering Support Vessels (LSV)
- Push Boats
- Crane Barges
- Deck Barges

WATERBLASTING SOLUTIONS GREEN TECHNOLOGY



Waterblasting is a solution that allows the integrity of the surface by high-pressure water cleaning.

The use of high-pressure water blasting, for surface preparation and surface cleaning, can eliminate rust, old coatings, product residue or even damaged concrete prior to re-pouring. In addition, it ensures proper adhesion of the coating to the original surface.

Talleres Industriales has invested in state of the art HPWJ X-Series diesel water blasters with working pressures from 5,000 to 40,000 psi (350 to 2750

are easy to mobilize to terminals and onboard vessels at the Cristobal and Balboa anchorages. We can also use this equipment for pipes and cargo tank cleaning.





NDT team was arranged to perform dye check to all suspected areas finding a total of 11 cracks on welding seams that needed urgent attention. Crack repairs included gauging, edge preparation, and full-penetration weld.

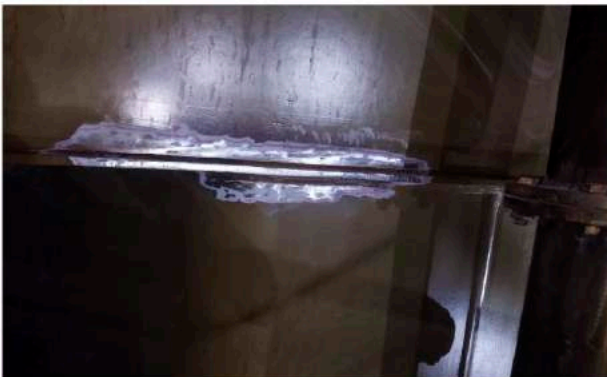


After the entire crack was repaired, it was inspected with the use of ultrasonic equipment to class satisfaction. Upon completion of the welding jobs, the cargo tank coating was restored following Paint Manufacturer recommendations.

The most critical part was the logistics to set up the welding team to perform the job on a safe manner. Talleres team erected 9 scaffolding towers on 3 cargo tanks at each position of the suspected areas and ensure that while building up the scaffoldings the tank coating was not damaged.



Finally, de-scaffolding in COT areas was done and demobilization of all equipment was performed to let the vessel leave and keep trading.



COMING UP ON OUR SEPTEMBER 2022 EDITION

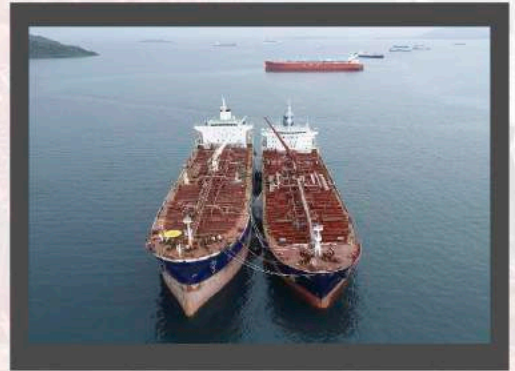
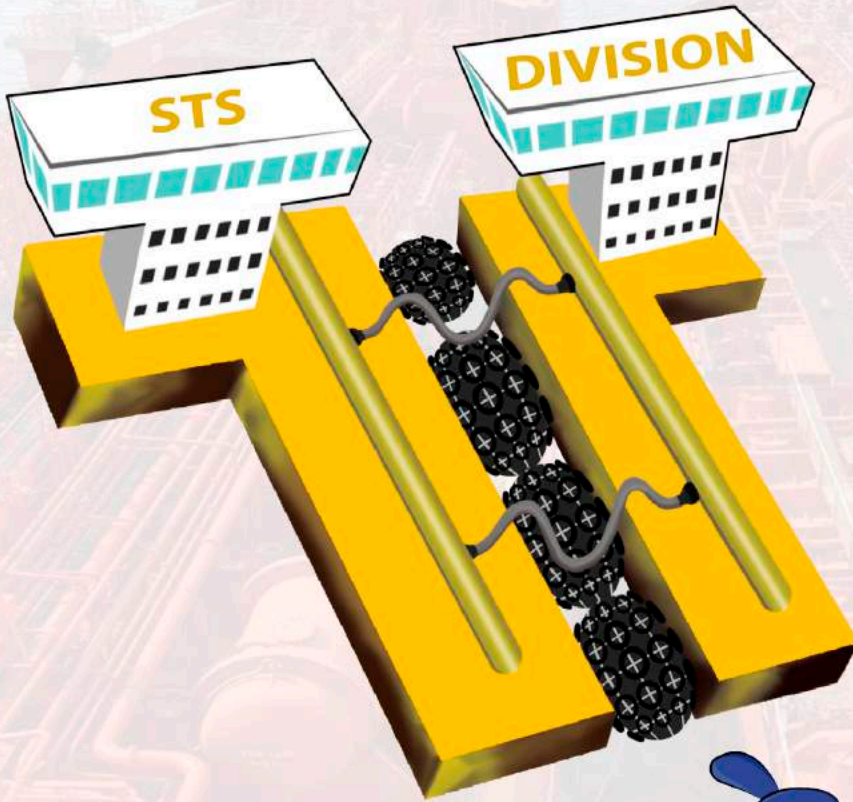
EXPERTS TO DEAL WITH BOTTOM GROUNDING DAMAGE AFLOAT



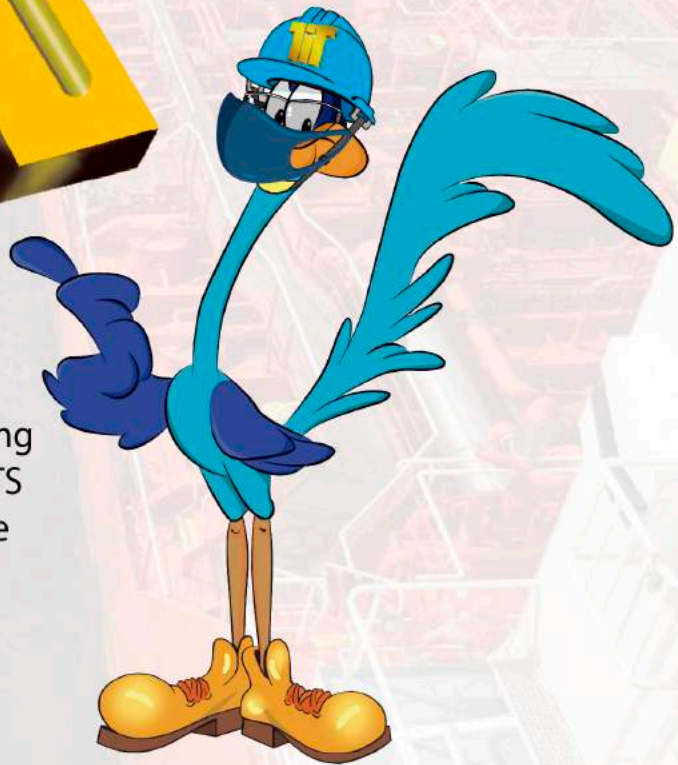
NOT FOR THE FAINT-HEARTED! TRANSFER OF 1500 TONS OF POWER PLANT EQUIPMENT TO BE DELIVERED TO THE CARIBBEAN



TALLERES SHIP TO SHIP TRANSFER DIVISION



Talleres Industriales, S.A. always improving and innovating has opened their new STS division together with the approval licence from the Panama Maritime Authority to perform ship to ship lightering operations at Cristobal and Balboa anchorage.



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