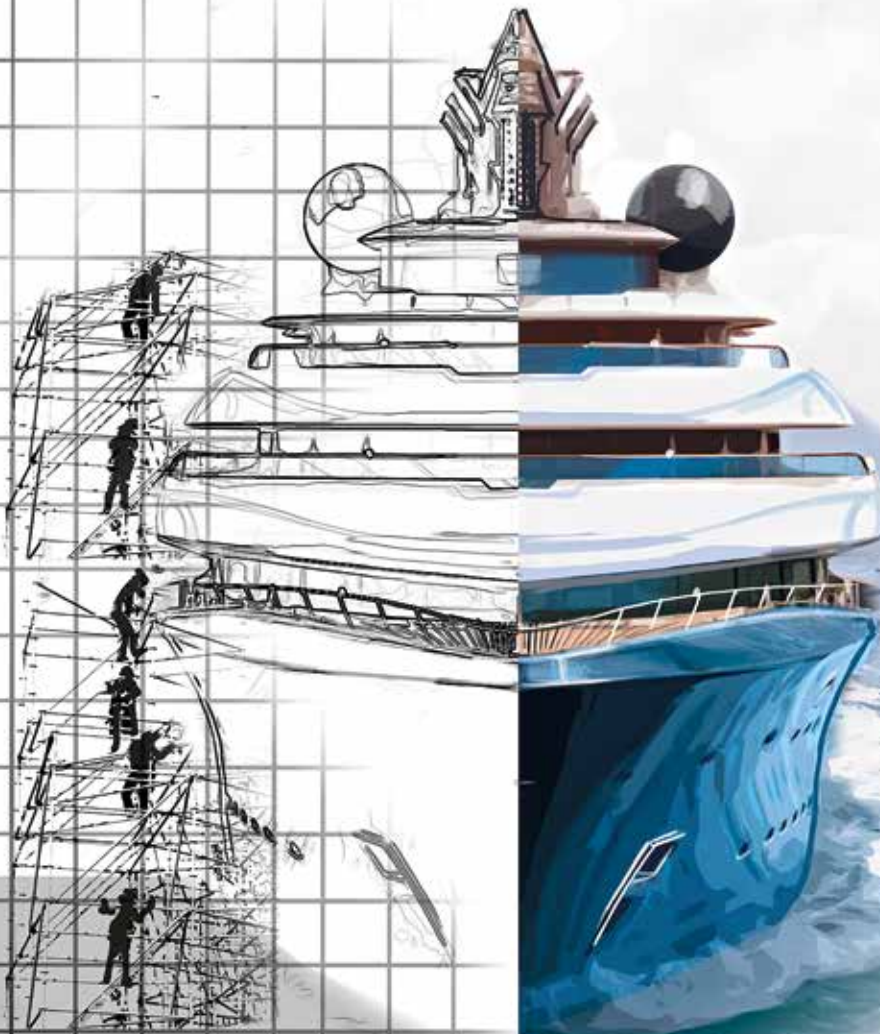


ASTILLEROS

DE MALLORCA
MAGAZINE

EDITION | 2022 | 2023



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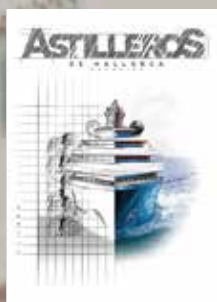
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We craft our refits with care



Illustrations:
Zhivko Stoyanov

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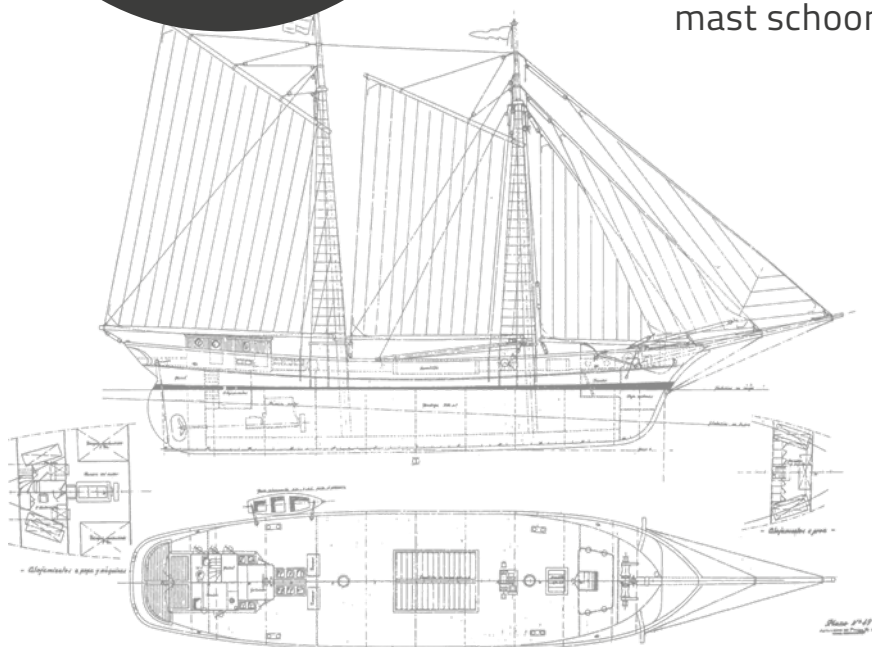


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YEARS

The yard's building activity reached its peak in 1984 with the delivery of "Jessica", a three-masted schooner; with its 65m. it became the largest three-mast schooner built worldwide since the 1920's



The history of Astilleros de Mallorca started 80 years ago in 1942, when two businessmen embarked on an ambitious venture and pioneered the construction of steel vessels on the Island of Mallorca. Originally they built 30m. pailebots (small schooners) in "La Pedrera" area, but later moved to our current facilities in the centre of the Paseo Marítimo, which were inaugurated in 1968. During this new stage, Astilleros de Mallorca constructed various types of vessels including container ships, oil tankers, trawlers, passenger ships and also the first salvage vessel built in Spain, "Esperanza del Mar",



OF UNINTERRUPTED HISTORY



which served for 30 years carrying out 75,000 assistances.

The construction of modern motor yachts started in 1975 with the 44m. "Cleopatra", designed by Charles E. Nicholson and still sailing under the name of "Berzinc".

The addition of new specialized workshops to the proprietary in-house workshops inherited from our new building past was a key moment in becoming a specialist in crafted refits.

To name just a couple of the refit

projects we are really proud of - our restoration of the mythical schooner "Creole", originally built in 1927 and the refit of MY Blue Bird for which we received the Best Refit Award.



The yard's building activity reached its peak in 1984 with the delivery of "Jessica", a three-masted schooner; with its 65m. it became the largest three-mast schooner built worldwide since the 1920's.

At present, this yacht sails with the name "Adix". The same year saw the launch of the 113m LPG Carrier which is the largest vessel built by Astilleros de Mallorca.

M/Y Aldonza, delivered in 1995, marked a turning point for Astilleros de Mallorca, with the conversion from building vessels to dedicating our resources to the refit and repair of yachts.



ASTILLEROS DE MALLORCA

TODAY



As with the expertise of a real watchmaker,
we craft our refits with care.



Today we are a fully equipped refit shipyard specialized in crafted refits and always ready to go that extra mile for you. The passion we feel about yachts is what drives us, and this feeling, together with our technical knowledge, is what we ensure we transmit through the generations.

The highest Quality and Client satisfaction are the natural result of this, although Client orientation, transparency, and work ethics are a key part of it.

Our approach is a mix of highly skilled craftsmen and proprietary

in-house workshops covering key specialities, with an array of preferred subcontractors of international recognition.

We also adapt to our Client's preferences and on occasions assume different roles in different projects.

Associate to Freire Shipyard, an emblematic new build shipyard founded in 1895, we count on additional new build techniques and solutions for the execution of the most complex refits and yacht conversions. Our experienced management team of naval

architects and engineers, the technical skills of our in-house artisans and the uninterrupted production chain, combined with the innovative ideas of our new build partners, is what allows us to meet your highest expectations. As with the expertise of a real watchmaker, we craft our refits with care.

Carlos Morales
Managing Director



REENERGIZED SHOW

The show that so famously kicks off the Mediterranean sailing season was back on the agenda in its rightful place at the end of April – early May 2022.



With 276 exhibiting companies, 264 vessels and 32.000 visitors, PIBS & Palma Superyacht Village made a strong comeback, reaching the participation levels of 2019, with only four exhibition days instead of the previously customary five.. The overwhelming response from the exhibitors and visitors after the difficulties caused by pandemic underlined the importance of the event for the local business and for the international yachting scene. Tying public and private initiatives

together, the PIBS and Palma Superyacht Village form an excellent window of opportunity to woo the discerning customers with an incredible variety of yachts on display and to showcase the services of the local companies and infrastructure for the international visitors. It also provides an important gateway for national and international companies looking to establish themselves in the Balearics or searching for local partnerships.

As 2022 marks our 80th anniversary, we thought Palma International Boat Show would be a good occasion to celebrate it at our stand with an authentic jamon iberico daily degustation. An anniversary is above all something to be shared and we are grateful to all our clients and friends who came to celebrate with us. See you next year!

Save the date of the next show:
27-30, April, 2023





ASTILLEROS DE MALLORCA
OFFICIAL PARTNER OF THE SUPERYACHT CUP SINCE 1997





Rank	Team	Class	Yacht Count	Race Count	Class Points	Trophy Points
1	GANESHA	B	4	3	5	0,33
2	SVEA	J	4	3	5	0,33
3	SAVANNAH	B	4	3	6	0,44
4	RANGER	J	4	3	7	0,56
5	KIBOKO TRES	A	3	3	6	0,67
6	PATTOO	A	3	3	6	0,67
7	VELSHEDA	J	4	3	9	0,78
8	ARCHELON	B	4	3	9	0,78
9	TOPAZ	J	4	3	9	0,78
10	ROSE	A	3	3	7	0,83
11	LA BELLE	B	4	3	11	1,00



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MONACO
YACHT SHOW

28 September
01 October
2022

YOUR SUPERYACHT EXPERIENCE STARTS IN MONACO

Quai Albert 1^{er}

STAND

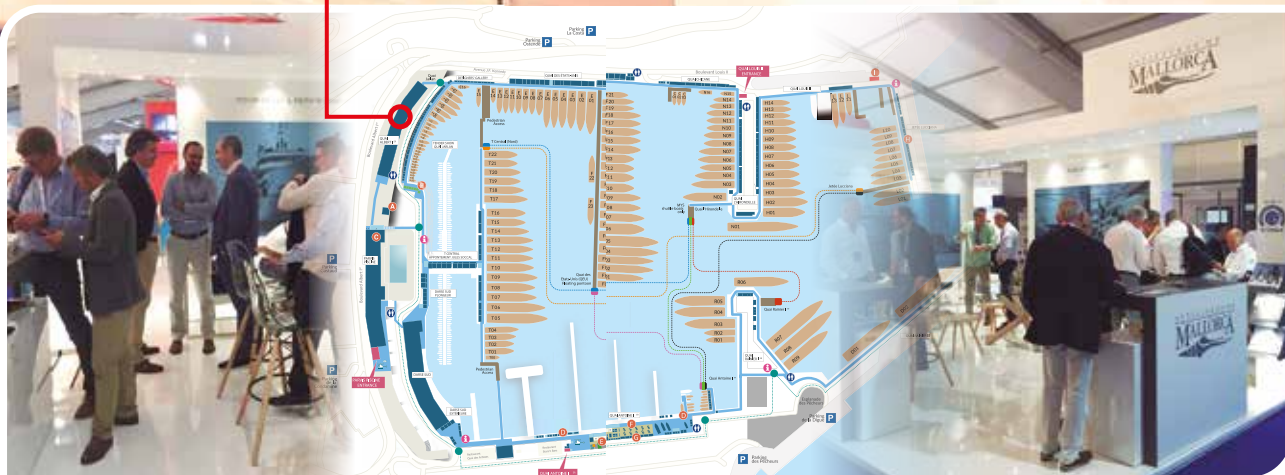
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WE LOOK
FORWARD
TO SEEING YOU!





Where you can find us



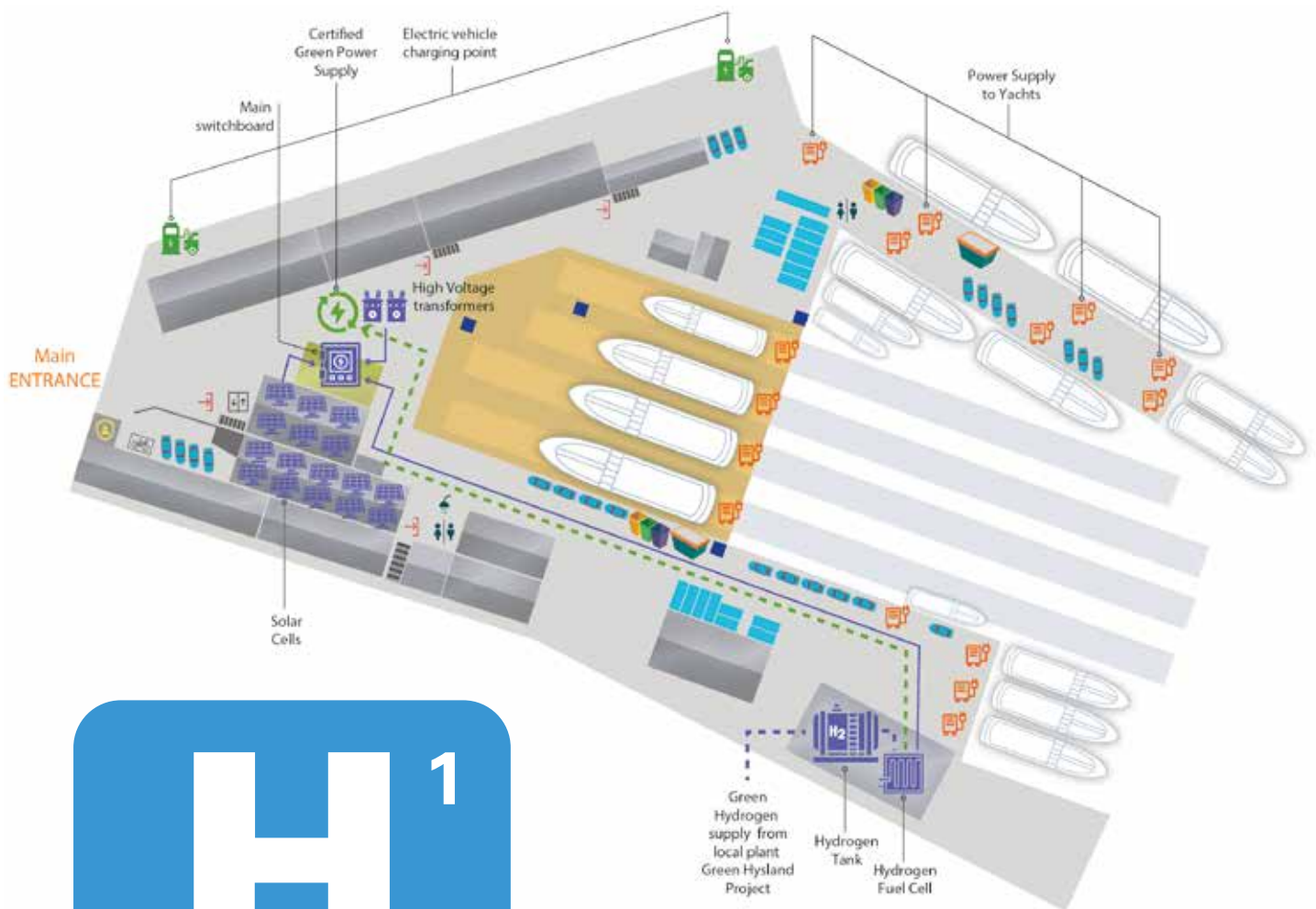
STUDY THE USE OF HYDROGEN CELLS TO OBTAIN ELECTRICITY

The development of this future project, based on unprecedented technology at an industrial level in the shipbuilding sector, would position the participating shipyards at the forefront in the development of clean and sustainable energy for self-sufficiency.

The Society for the study of Maritime Resources (SOERMAR) carries out the technical feasibility study prior to an R&D project. This is for the advanced conceptual design of a hydrogen production, storage and fuel cell set in order to supply electrical energy to the Shipyards: Freire, Astander and Astilleros de Mallorca. The strategy of the participating shipyards is to acquire the necessary knowledge to install a prototype that will hopefully, in the near future, become unique at a national and European level. "The development of this future project, based on unprecedented technology at an industrial level in the shipbuilding sector, would position the participating shipyards at the forefront in the development of clean and sustainable

energy for self-sufficiency", explains Eva Novoa, General Manager of SOERMAR. Before being able to design the project it is first necessary to carry out a feasibility study with a structured methodology that will guarantee its success and at the same time reduce any risks and uncertainties at source. This system is a future experimental development project, continuously being evaluated and analysed, which has the potential to reduce emissions through the use of new technologies; something that the participating shipyards do not have specific knowledge or previous experience about. This ensures that the decision-making process remains objective and rational, making aware their strengths and weaknesses, their opportunities and threats are discovered,

the resources necessary to carry out the process and their prospects for success are determined. The main purpose is for the development of new or improved processes or services. The scientific-technological objective of the project is to analyze the available technology related to the use of fuel cells and the feasibility of their application to supply the electrical and thermal needs of the participating shipyards. Also to investigate the different methodologies for taking advantage of the residual heat of the fuel cell to increase its efficiency and reduce the need for other energy sources for heating and hot water. From a strategic point of view, the purpose is to design a facility for the generation and storage of sustainable electrical



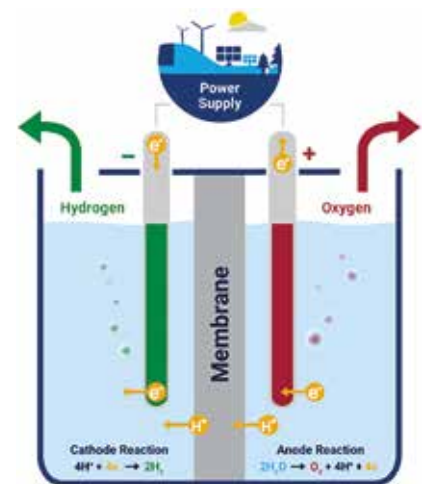
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Hydrogen

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and thermal energy from hydrogen and with guarantees of success. Likewise it enables the participating shipyards the opportunity to acquire knowledge so as to advance in the design and implementation of this technology in ship prototypes, which will allow them to have a technical and technological differentiation, that will make them more eco-efficient and competitive on a national and international level. “At the same time, from an industrial

perspective, the objectives pursued are to achieve energy efficiency, reduce greenhouse gas emissions and use hydrogen for the production of electrical energy with a yield of no less than 80%. For this it is necessary to take advantage of the residual heat generated by the fuel cell, which means having specialized technologists in the field”, says Alfonso Carneros, technical director of SOERMAR.





Additive technology expands its range of applications.

Augmented reality is almost ready to be used and robots seem to be more affordable and applicable for companies other than automotive ones.

The digital transformation that many companies underwent in past years was imposed by the pandemic effect and the subsequent struggle to survive. Our case is different – we were already prepared to have our office staff working remotely – but additionally we have undergone a massive change in procedures and structure, as a result of a long-meditated adaptation to the continuous increase in the size and expectations of the yachts we serve.

Digital transformation has a leading role in the changes of today. Think about how Classification Societies push the development of AI in the marine market. ABS is using AI in plate condition inspections, to reach conclusive results based on photographs of the surface. Photographs that may have been taken by drones controlled by Approved Companies to perform Remote Surveys. Additive technology expands its range of applications. Augmented reality is almost ready to be used

and robots seem to be more affordable and applicable for companies other than automotive ones.

We are not a tech company nor a lab, but as Astilleros de Mallorca we are following the market trends to pick up technologies when they reach a good TRL (Technology Readiness Level). We are also continuously working in the deployment of the full capabilities of our new ERP (Enterprise Resource Planning). After a season using our new **Daily Work Report APP** we are ready



to say that the complete process is robust and reliable. When implementing changes that involve a large number of people, it is good practice to start with the minimum viable solution. In this way, we humans learn faster and reach a higher level of confidence in shorter periods of time. Using the current version, our team is able to report their time dedicated to the work as well as the specifying machinery used for the job. This is true even for work orders that have been opened minutes before. One of our strengths is our capacity to adapt every day work to new tasks demanded by Captains and Chief Engineers or that may have arisen

after condition surveys. Our APP has been designed with our flexibility in mind. In coming developments, we will include report capabilities among other items. Unfortunately, the exciting possibilities of new technologies come hand-in-hand with risks such as ransomware, malware and dedicated attacks. There has been hard work in Cybersecurity in the Marine sector and we applaud it. However, no company is safe if left alone with its protective measures; the complete marine industry has to rise together to achieve a much higher level of security. For this reason, we encourage our clients

Our team is able to report their time dedicated to the work as well as the specifying machinery used for the job.

and partners to continue the implementation of Cybersecurity measures as outlined in the IMO Guidelines on maritime cyber risk management. Please feel free to ask us for our insight and recommendations on reliable experts within the field. Let's work together to create a safer industry for everybody.

Lucía Mingot
Quality & Innovation Director



18 YEARS

OF ENVIRONMENTAL COMMITMENT



As a race, humans are inclined to celebrate special events such as anniversaries, with concrete dates wherein we recollect and gain momentum to continue onwards. In Spain, as is the case in almost all of Europe, you come of age when you reach 18 years old.

For this reason, it is somewhat tempting for us to make a parallel and celebrate the 18 years of the ISO14004 environmental certification of Astilleros de Mallorca. A landmark of 18 years of uninterrupted commitment to the environment above and beyond established legal requirements. And so, we will celebrate it as we always have, with a portfolio full of environmental projects, always with room for improvement.

This year we have collaborated with a group of biologists from the Oceanographic Institute in a project to improve the quality of the port waters through bioremediation. The method consists of using bivalves (in our case mussels) to improve the quality of the water in the Port of Palma.

Astilleros de Mallorca is a company that discharges zero waste into the sea. We do not discharge hull washing water into the sea, or any other industrial effluent, and we supply connections

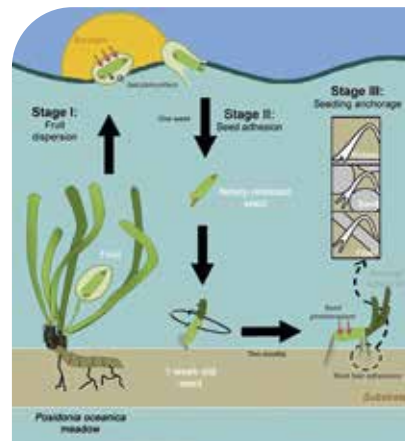


for the Yachts' sanitary water so they do not discharge either. But we do not want to remain in strict compliance with the legislation; our staff have constructed protective creels to home four colonies of mussels and have anchored them in selected locations with the scientist's assistance and approval. There are a few months ahead of us to study the survival and

mobility, efficiency improvements, with the ultimate goal of being a carbon-neutral company.

Over this past year our clients have seen the innovative work tents that are being used throughout the shipyard, made from reusable materials. These tents, which eliminate 60% of single-use plastic, represent a reduction in the generation of plastic waste of 120 tons per year. The traditional shrink-

We are proud to announce the renewal of our ISO14001 environmental certification with LRQA for the 18th consecutive year. Thanks to our staff, collaborators and customers for helping us to help and respect our planet.



absorption of pollutants by these incredible beings.

In accordance with the UN sustainable development goals, we are proud to purchase 100% of our electricity from renewable sources, with a high component of locally generated energy. This is reflected in the reduction of our carbon footprint that BV will verify for us this year. The plan to minimize our footprint will continue throughout the coming years, with commitments to the installation of photovoltaic panels; electric

wrap plastic has been replaced with rigid panels, which also improves the working environment providing greater thermal and acoustic insulation and an improved fire safety.

Our aim is to make the most of waste, and this year we will be installing new collection containers for wood and textiles in addition to increasing the size of our plastic containers. We want to make it easy for our clients and collaborators, so they are able to separate their waste easily and clearly here on site.

18 years is just the beginning; we hope to continue celebrating many more anniversaries, with each one being that bit more sustainable than the last!

Lucía Mingot
Quality & Innovation Director



CAPTAINS & CREW **NETWORKING AND CONNECTING**

Astilleros & ACREW invite all superyacht crew
in Mallorca to participate in their next event
which will take place on 9th and 10th November.

The 7th edition of our joint event with ACREW took place in our premises on the 23rd and 24th of March 2022.

Designed to give crew the opportunity to develop in their career, whether that means they are currently working onboard or looking for a position, we were very happy to see many new faces



ACREW

in addition to many friends from the previous editions. Like other years, the event consisted of hands-on educational department-targeted workshops. Additionally social activities were in full swing, where Captains and Crew enjoyed networking and connecting with others in the field.

Astilleros & ACREW invite all superyacht crew in Mallorca to participate in their next event which will take place on 9th and 10th November.

The event has no additional cost for superyachts and their crew.

SAVE THE DATE:
9th and 10th November



EVENT PROGRAMME

Wed 23rd March

9.00 - 12.00

Captain's Session:

How to Ensure Safety and Security Onboard

14.00 - 17.00

Chief Stew Session:

Improving Chief Stew Excellence Onboard

12.00 - 13.30

Captain's Lunch

17.00 - 19.00

Pub Quiz, Happy Hour & live DJ entertainment

Thu 24th March

9.00 - 10.00

Investing Basics:

Why Diversification Is Important
Facilitators: Anuj Ghosh, Charlie Panayi

12.00 - 13.00

Lunch "Menú del Día"

9.00 - 10.00

Refreshing Key First Aid Skills with Medaïre and Philips

Facilitators: Roland Archdall, Helen Sibthorpe

13.30 - 14.30

Not your Grandma's Sherry! - Number Twelve Fine wines & provisions

Facilitators: Santiago Salas, Bence Szabo

10.30 - 11.30

Yacht Crew Travel - Bringing a New Perspective with ATPi

Facilitators: Fran Blackburn

15.00 - 16.00

Silver Service & Formal Table Setup with Barcelona Crew Academy

Facilitators: Mayte Bruguera

10.30 - 11.30

How to Best Maintain your Deck with Teakdecking Systems

Facilitators: Eric Young

16.00 - 18.00

**Evening Programme
Beerpong & Networking**

Knowing our
PARTNERS



llalco
Fluid Technology

AFTER YEARS OF CLOSE COLLABORATION WITH
ASTILLEROS DE MALLORCA, LLALCO BECOMES

manufacturer

OF ANTI-FOULING AND ICCP SYSTEMS



Quote Commercial Director :
**“Wherever our client is, Llalco
will always be close by.”**

Llalco starts 2022 with a new challenge. Throughout its history, the company has designed, supplied, installed, commissioned and maintained more than 1,000 systems for the protection of biofouling in seawater intakes and the protection of the hull wet surface against corrosion. Now, after more than 30 years of work in the sector, Llalco evolves into a manufacturer of anti-fouling systems and ICCP impressed current cathodic protection systems.

Quote General Manager Javier Llamas: “The current situation requires being closer, flexibility and control. This is Llalco.”

More than 2 years ago, the management began to prepare a change to adapt the company to the new rules of the market, where supply chains are suffering very important structural changes. Faced with the new world order, Llalco focused its objectives on recovering certainty with local, European supply.

Quote Commercial Director Rubén Correa “We have reorganized our supply chain to return control to our customers. Optimized stock management, delivery times appropriate to the day to day of our sector and high-quality materials to meet world class standards.”

The company now has 4 manufacturing units: Madrid, UK, Germany and China.



The manufacturing unit in China provides redundancy, is strategic for the Asian market and is covered in Europe by the manufacturing unit in Germany, which is mostly for the military, naval and yacht sectors.

Quote General Manager Javier Llamas: "When choosing a manufacturer, one of the decisive factors lies in the maintenance of the equipment. That is why Llalco offers its technical service all over the planet to assist vessels wherever they need it."

In addition, Llalco continues to work hand in hand with strategic partners of cutting-edge protection

technologies that complement its technologies and offer customers multiple possibilities to trust Llalco:

1. Optimarin ballast water treatment systems. One of the most prestigious manufacturers in the world and with full dedication of its operations to ballast water treatment.
2. Blokland Boxcoolers carefully handcrafted by the best experts in the Netherlands.
3. Rivertrace Oily Water Monitors, renowned for their high quality and extensive global service network that makes it easy to calibrate the equipment wherever the ship is.
4. Victor Marine Sewage Treatment Plants and Oily Water Separators.
5. Hatecke rescue boats and davits, made in Germany.

Satisfied customer quote: "If it's Llalco, it's good. I trust Llalco because I know they manufacture and select the best technologies on the market and that guarantees a safe purchase". Accompanying the evolution to manufacturers, Llalco has invested in its human team, expanding it with new signings and a matrix organization to meet the new needs of the company. Headquartered in Madrid, Llalco has decentralized its core operations, maintaining great team cohesion in order to always be close to the customers in Spain, Latin America and the rest of the world.

New technical aspects, case study:

Systems against marine biofouling:

Llalco has developed 100% redundant antifouling systems. In these cases, anti-fouling anodes are installed in the sea water intakes and in the filters. The former always remain in operation, while the latter only act in the event of incidents. With this solution, the customer has the peace of mind of keeping his sea water cooling circuit redundantly protected.

This practical case has been implemented in military, ro-ro and fishing vessels, ensuring that both the sea intakes and the ship's salt water cooling circuits are always protected, regardless of the incidents that may occur in the sea water intakes and without depending on the dry docking of the ship.

Impressed current cathodic protection systems:

Llalco has improved the hull components of impressed current cathodic protection systems in such a way that they can be easily changed by divers afloat, without the need to go into a dry dock.

In addition, Llalco has taken a technological leap by developing a new and innovative dual control panel for impressed currents and anti-fouling for military and commercial applications, which consists of miniaturizing the panels and making them dual, that is to say, that the same panel controls the antifouling system and the impressed current cathodic protection system.

Knowing our PARTNERS



Marine Oil & Fuel Care is a company specialized in tank cleaning, fuel and oil quality control and laboratory services to ensure that all your fluid systems are running according to the best hygienic and operational standards.

Our partner carries out all tank cleaning, Oil Flushing, and Fuel Polishing operations following the strictest health and safety and environmental procedures, offering a tailored service specially conceived for the superyacht industry.

Critical concepts, essential in our sector but many times ignored in other fields, like previous inspection, fluid sampling and surface protection are basic in all projects.

Marine Oil & Fuel Care also emphasizes reporting as this is an essential proof of service of the different aspects an operation might entail: protection, forced air ventilation, before & after photo report and laboratory results.





The company carried out a complete service on one of our long standing clients; a 59m motor yacht, and as a case study of the different services provided to the vessel, the following ones are to be highlighted: Initial inspection of 7 different tanks including fuel tanks, black and grey water tanks and lubricating oil tanks.

Services:

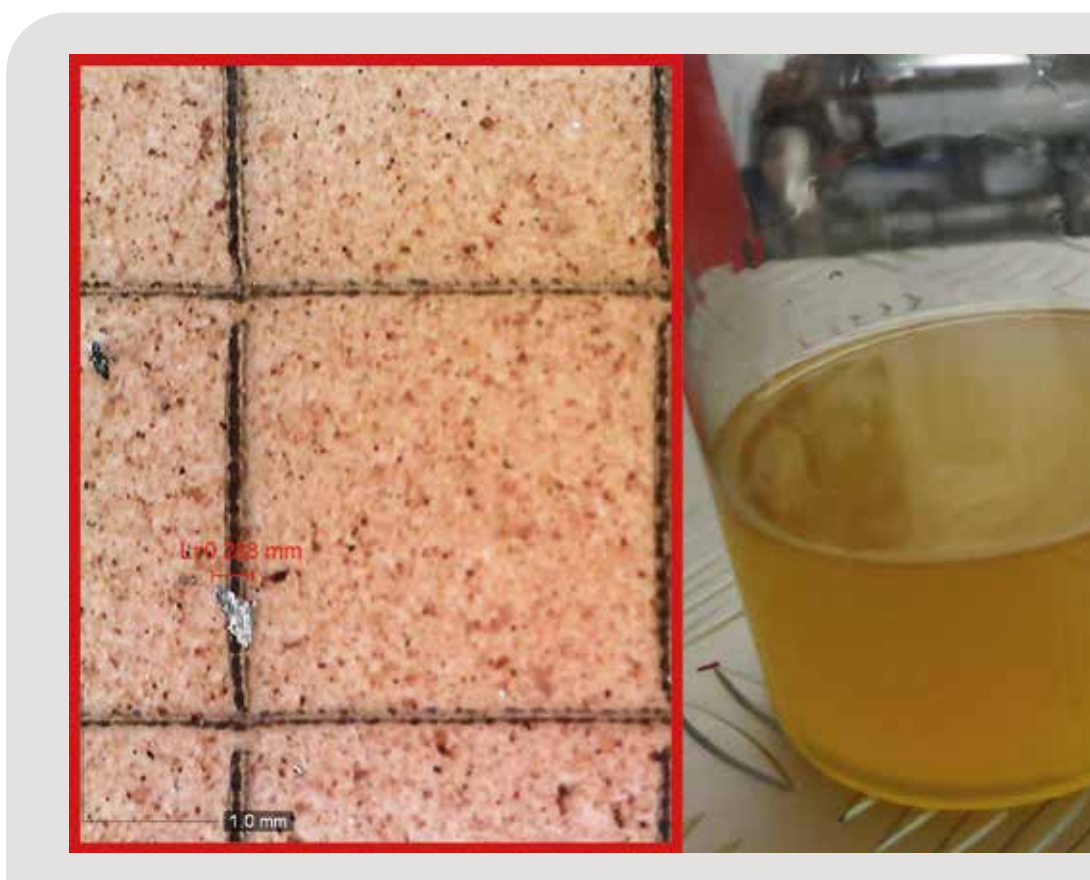
- Install protection in all accesses.
- Install forced air ventilation to remove vapours and improve drying processes.
- Verify absence of gas and other hazardous elements in the tanks.
- Clean tanks with high pressure water flow.
- Manual drying of tanks.
- Fuel polishing according to ISO 4406/99 – 18K litres.
- Biocide treatment of filtered fuel with Grotamar 82.
- Lab reports and final maintenance recommendations.

THE IMPORTANCE OF FUEL CLEANLINESS ROUTINE MONITORING

Diesel fuel quality has a great impact on engine performance, engine service life and exhaust emission levels.

Particle contamination

Fuel cleanliness is critical to ensure the correct performance of the engine. Fuel systems are sensitive to the presence of solid particulate matter or 'dirt'. Presence of abrasive particles in the fuel, no matter how soft and little the particle is, have a wide variety of harmful effects in the system. To minimize these problems, it is highly recommendable to monitor the

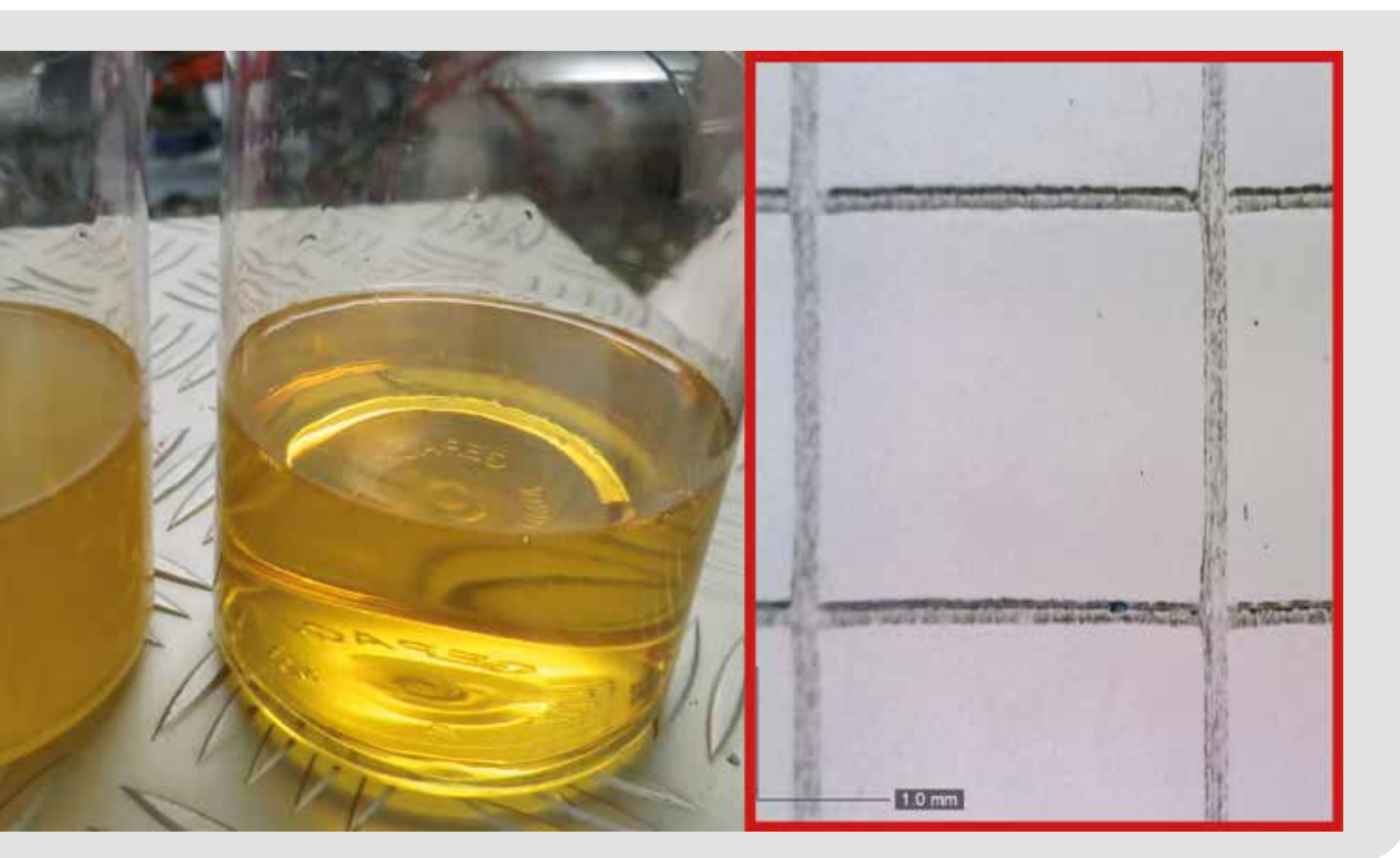


particle contamination in the fuel and implement a comprehensive filtration program.

ISO 4406:99 is an international rating system for fluid cleanliness and provides a means of expressing the level of particle contamination. ISO 4406/99 determines the number and size of particles within fuel. The human eye can only see down to 40 µm, so a visual test of how “clear and bright” the fluid is, is not correct. A quantitative test according to international standards as ISO 4406:99 with the suitable equipment must be

performed. Main Yacht installed Engine manufacturers recommend an ISO code 18/16/13 or better as the cleanliness target in fuel tanks. HPCR engines have tighter tolerances between moving parts, so many injectors manufactures recommend ISO levels as low as 12/9/6 before the high pressure pump. To achieve such levels it is strictly recommended to integrate an additional “UPGRADE” filtration system in the existing fuel system, as the standard paper protection turbine filters and current installed centrifuges are not enough.

Critical concepts, essential in our sector but many times ignored in other fields, like previous inspection, fluid sampling and surface protection are basic in all projects. Marine Oil & Fuel Care also emphasizes reporting as this is an essential proof of service of the different aspects an operation might entail: protection, forced air ventilation, before & after photo report and laboratory results.





1942 - 2022



WE CRAFT OUR REFITS WITH CARE

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