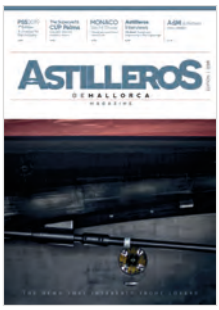
ASTILLEROS DE MALLORCA MAGAZINE

EDITION | 2019

THE NEWS THAT INTERESTS YACHT LOVERS

new challenges...

Photo:
Carlos Hellín



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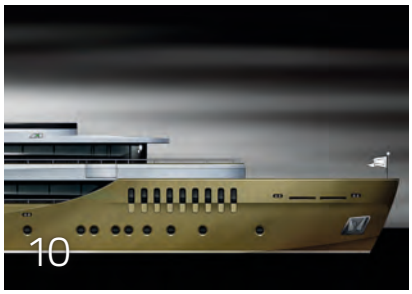


A CHANCE

for the industry to pay homage to the sailing yacht sector

PALMA SUPERYACHT SHOW 27th April - 1nd May

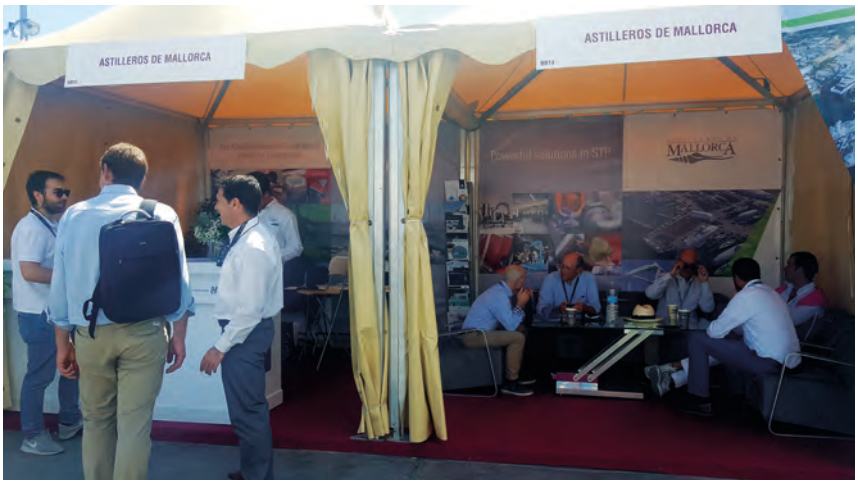
2019 marked the 7th edition of PSS, one of the first shows on the yachting agenda this year. Organised by the industry, for the industry, Palma Superyacht Show demonstrated again its constant desire for improvement.

Once again, this year we saw the 72m floating bridge which connected (for the first time in 2018) the Fisherman's dock to Moll Vell.

It goes without saying that the usual enthusiasm, great energy and vibrant atmosphere, were the order of the day. Year after year the Mediterranean yacht hub attracts more and more professionals from the industry and the 2019 nautical co-event (PSS & Palma Boat Show) resulted in many exhibited vessels. The statistics outlined 300 boats in the water, 270 exhibitors and a total display area of almost 81.500m^2.

Reported as "a chance for the industry to pay homage to the sailing yacht sector" the sailing boats demonstrated predominance, after all, this is the biggest sailing yacht rendez-vous.

The Refit & Repair area, being one of the most, if not the most specialised area, continues to attract many industry professionals. The famous "Nit de la Mar" was celebrated by all with an impressive ambiance, running through until 11p.m. with Astilleros de Mallorca enjoying the special 'Sea Night' accompanied by lots of cava and good music.



SAILING YACHTS

RENDEZ-VOUS

The 24th edition of The Superyacht Cup announced for the 17th - 20th June 2020.

Astilleros de Mallorca, official partner of the Superyacht Cup, since 1997

THE SUPER YACHT CUP
PALMA 2019

The 23rd edition of Europe's longest-running superyacht regatta once again made its appearance in Mallorcan waters. Famous for its warm and welcoming ambiance on land and in water, this friendly competition is one of the most graceful events of the 2019 yachting calendar. This year the overall winner was the 33m Baltic built yacht 'Win Win' whose victory is a second one in The Super yacht Cup since 2016. As last year, this year's Owners Party was held at St. Regis Mardavall Resort, where guests were able to enjoy the exquisite culinary creations of the two Michelin star chefs. The organisation also announced the 24th edition of The Superyacht Cup Palma, which will take place from the 17th to 20th June 2020.

Class A

Yacht Name	Start time	End time	Elapsed time	Delta	Points
1. Win Win	13:09:00	15:23:22	02:21:50	00:00:00	1
2. Open Season	13:07:00	15:28:50	02:14:22	00:03:06	2
3. Nilaya	13:05:00	15:38:00	02:33:00	00:05:28	3

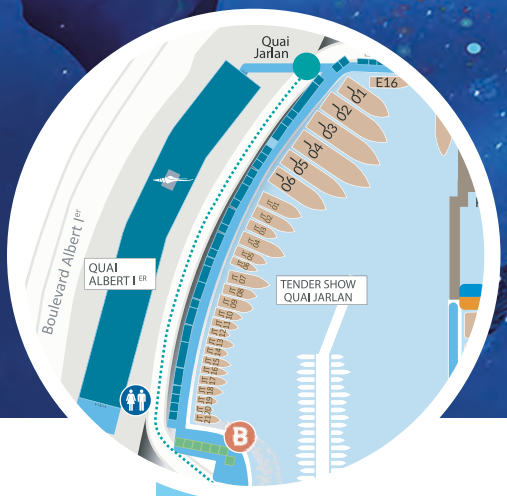
Class B

Yacht Name	Start time	End time	Elapsed time	Delta	Points
1. Velsheda	13:21:00	16:17:53	02:56:53	00:00:00	1
2. Topaz	13:21:00	16:19:21	02:58:21	00:00:15	2
3. Missy	13:19:00	16:13:16	02:54:16	00:03:44	3
4. Stay Calm	13:15:00	16:45:04	03:30:04	00:25:23	4
5. Tulip	13:13:00	17:17:03	04:04:03	00:54:52	5
6. Child of Lir	13:17:00	17:22:07	04:05:07	01:04:03	6

Class C

Yacht Name	Start time	End time	Elapsed time	Delta	Points
1. Huckleberry	13:31:00	15:48:32	02:17:32	00:00:00	1
2. Bequia	13:25:00	16:00:25	02:35:25	00:00:30	2
3. Kealoha	13:27:00	15:47:28	02:20:28	00:00:37	3
4. Meteor	13:29:00	15:58:03	02:29:03	00:03:24	4

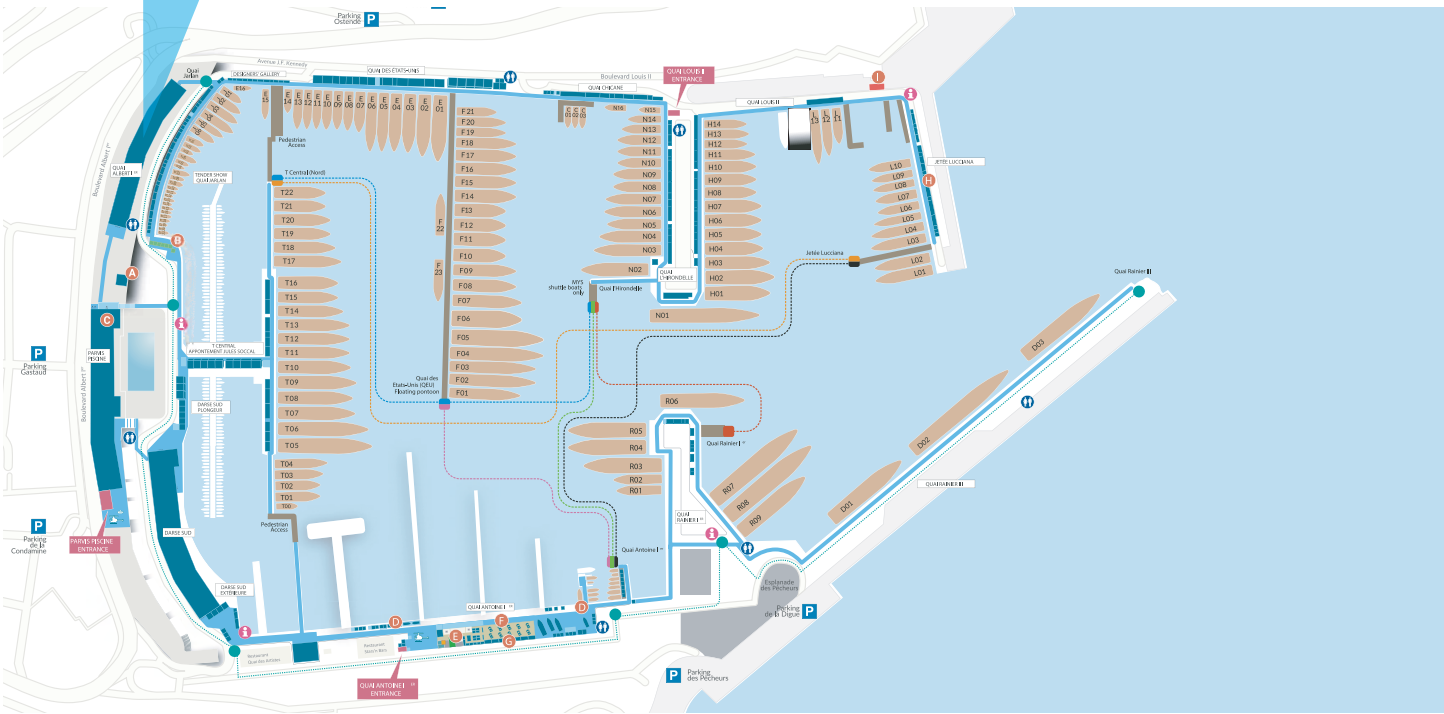
MONACO YACHT SHOW



WHERE

you can find us

We look forward to seeing you

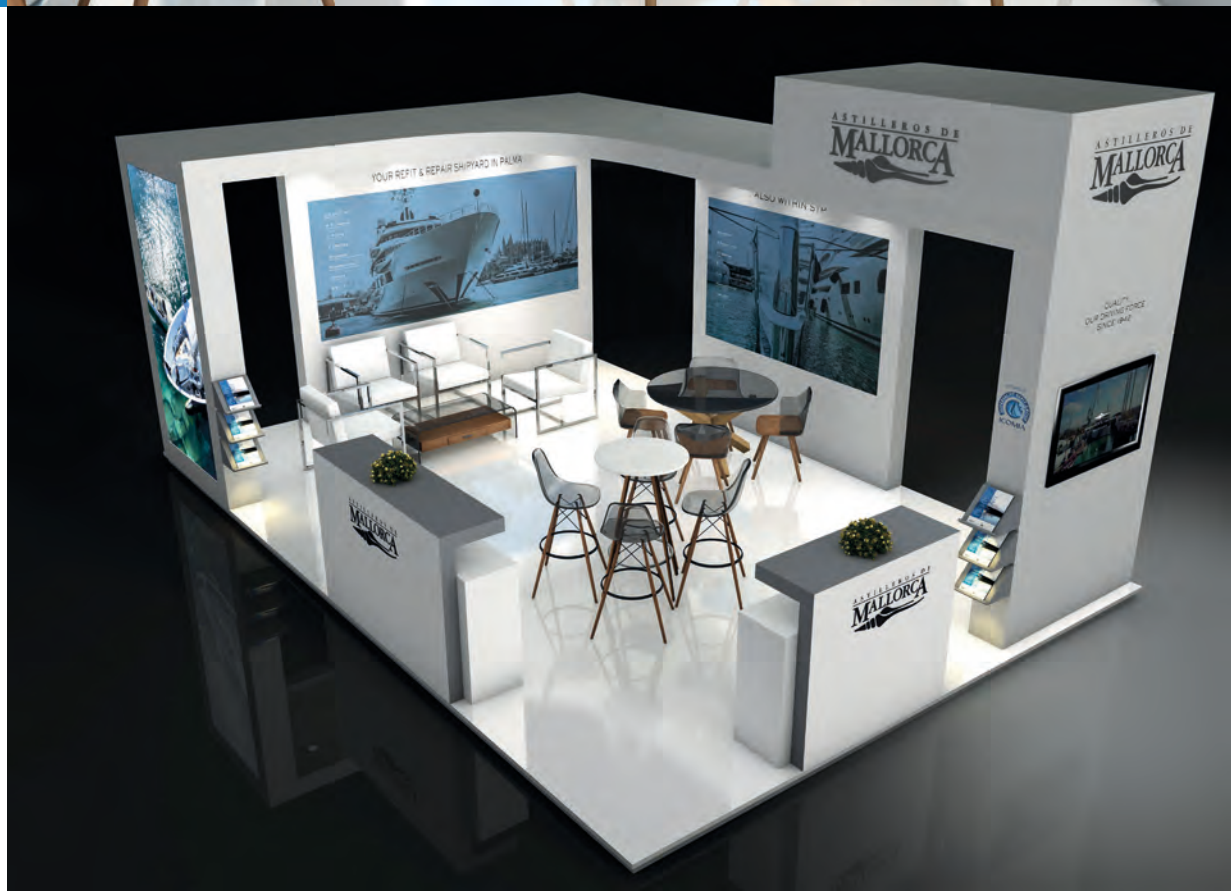


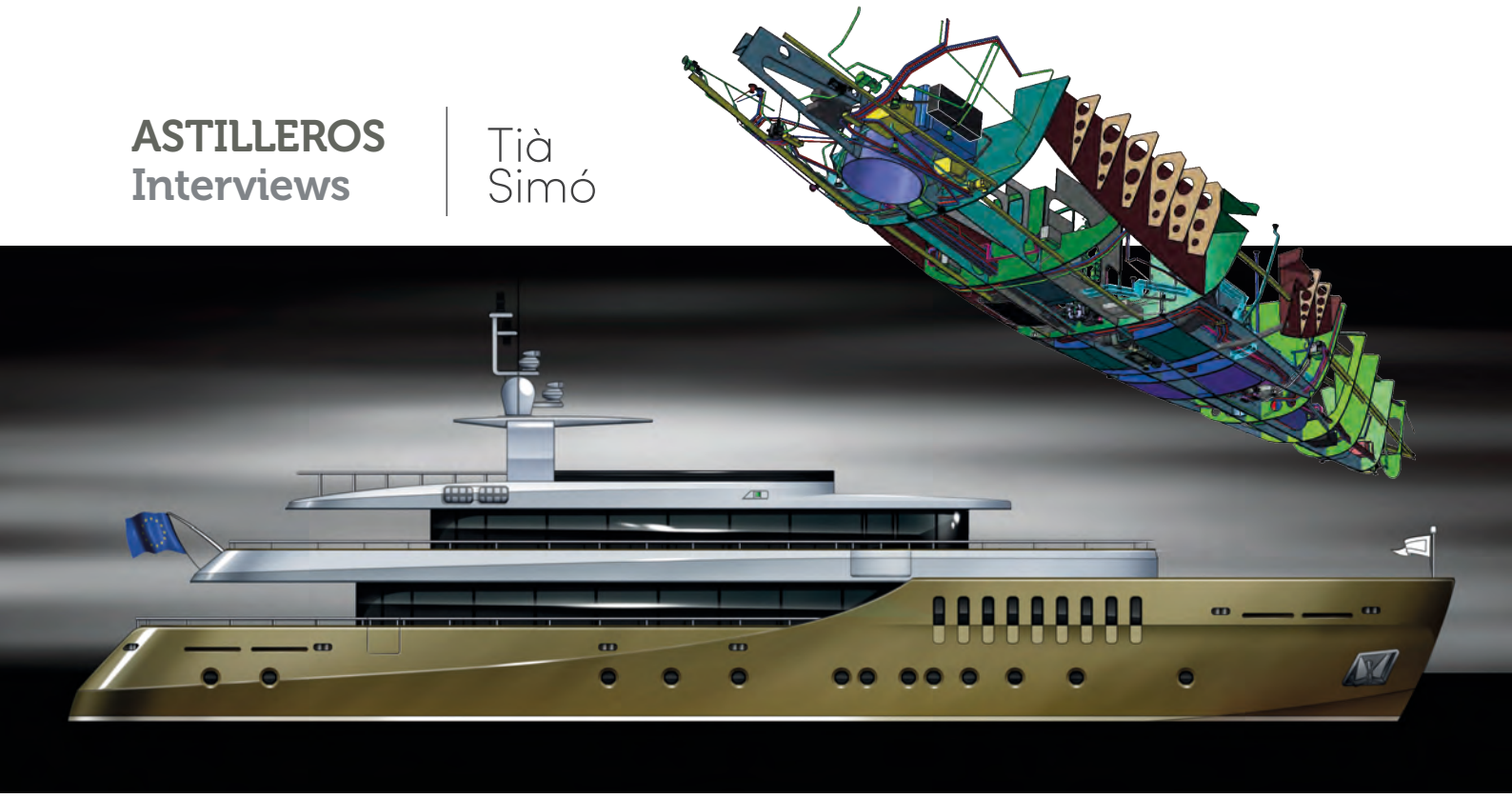
25
SEPTEMBER
28
PORT HERCULES

ASTILLEROS DE MALLORCA

Quai Albert 1er

AL48





DESIGN AND ENGINEERING IN THE DIGITAL AGE

Defined as the previous process of mental configuration, "prefiguration", in the search for a solution in any field, the DESIGN involves varied dimensions that go beyond appearance, shape and colour, also encompassing the function of an object and its interaction with the user.

Tià, could you please tell us more about you and your profession?

Mallorquin by birth and heart, I have spent most of my life away from the Island, between Madrid, Barcelona and Southampton. Established in Palma since 2013, I am Manager of the local BYD GROUP office.

I founded the company BYD together with Raul Gonzalo years ago in Barcelona.
The beginnings of my profession were at the time of the beginnings of digital design in Yachting, where hand drafting in CAD was just beginning. The transition from rulers and pens to computers, the beginnings of 3D design in yachting,

"The beginnings of my profession were at the time of the beginnings of digital design in Yachting, where hand drafting in CAD was just beginning. The transition from rulers and pens to computers, the beginnings of 3D design in yachting, driven by the digital advancement of automotive and aeronautics."

driven by the digital advancement of automotive and aeronautics.
We never stopped using pen and paper to make our initial sketches, we never wanted to lose the romanticism of the paper, but from day one we were clear that our world had to involve a complete digital immersion.
Pioneers in Europe in the use of advanced parametric engineering software in Yachting for the creation of digital models such as CATIA V5 in 2004, as well as pioneers in Spain of the use of 3D laser scanner since 2005, I have always pushed to improve design using state of the art of technology.

What is your intention with yacht design?

The design, in my view, must be the fusion between function and form, and must be linked inexorably with economic and technical feasibility. This is something that has always pushed me to look for the simplicity of the forms, the practicality of the product, the optimization of the hulls, and of their structures. The designs that we do, are not designs focused only from an artistic point of view, but from a global view of the product, uniting in one vision all the aspects that influence the development of a boat. I always look for simple, harmonic lines, inspired by nature, sea creatures, birds, plants.... that have been in evolution for millions of years. As a fundamental idea, the boat design needs to be state of the art in technology, but it must seek as its objective harmony and a durability over time. A boat is an element that is lived in and that transmits sensations, where we share unforgettable moments and that is the area that we must emphasize when creating.
The word design, is defined as the previous process of mental configuration, "prefiguration", in the search for a solution in any field. The design involves varied dimensions that go beyond appearance, shape and colour, also encompassing the function of an object and its interaction with the user. The functionality, operability, efficiency and service life of the design object should also be taken into account during the process.
Thanks to the multidisciplinary structure of our team, and 20 years of experience in the design, manufacture and refit of boats, it allows us to have a broad global view of the project. This gives us an initial vision of the project and helps it become a reality with minimal alterations due to technical or economic impairments. Our team has been awarded with international design awards, such as The Millenium Yacht design award at Seatec, Carrara, Italy, or the design award of the nautical salon in Barcelona, as well as the Best newcomer at the Cape Town Boat show.
The use of 3D parametric software allows the design of the product to always be alive, and as it evolves over time it adapts to the needs of the customer and manufacturing. This type of software allows us to design every section of the boat so that the production side is carried out smoothly and with maximum precision.
With refits, being pioneers in digital laser 3D scanning, it allows us to recreate the area to be reformed with a detailed millimeter precision, which helps us to perceive in detail the space that we are reforming, and thus optimize the design to the limits. We can produce workshop drawings, to be cut or milled directly from our computer, and this allows us decentralized production, which reduces costs and increases efficiency. It is a real pleasure to see how a creation evolves from the computer screen and at the same time see how it is being built, assembled and made a reality.

ASTILLEROS EVENTS | Boat Show Investment Forum

NINE
projects, one winner

Astilleros de Mallorca hosted this year the third edition of the Boat Show Investment Forum. Organised by IDI (Institut D'Innovació Empresarial), in conjunction with Keiretsu Forum.

Astilleros de Mallorca hosted this year the third edition of the Boat Show Investment Forum. Organised by IDI (Institut D'Innovació Empresarial), in conjunction with Keiretsu Forum, the goal of this entrepreneurial meeting was to promote start-up projects and growing companies, related to the nautical sector, which are seeking private capital investment.

Nine projects related to shipbuilding, technological platform and nautical industry participated in this year's Investment Forum edition.

The winners of the award were "La Bella Verde", a company dedicated to building solar electric vessels in addition to the conversion of regular boats into hybrid or fully electric vessels.

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International Standard Organization

ISO/TC8 meeting in Astilleros de Mallorca

23 experts of all around the world met in our premises to discuss standardisation across the maritime industry.

2019 saw Astilleros de Mallorca host the International Standard Organization TC8 annual meeting.

23 experts from all around the world met in our premises to discuss standardisation across the maritime industry. Chairmen and various advisors of the TC8 exchanged their points of view and marked the strategic direction of the Committee on “Ships and Marine Technology”.

Ship and Marine Technology Technical Committee (ISO/TC8) has the commitment to the standardisation of design, construction, structural elements, outfitting parts, equipment, methods and technology, and marine environmental matters, used in shipbuilding.

They are also involved in the operation of ships, comprising of sea-going ships, vessels for inland navigation, offshore structures, ship-to-shore interface and all other marine structures.

In parallel, the supporting network of secretaries from the global network of National Standard Bodies (SC12 is supported by UNI from Italy) met to discuss their role.

Some of the most interesting topics were:

- Maritime Education
- Automation of Digital Processes
- ISO Smart Shipping Roadmap
- Application of intelligent technology in maritime industry
- Cyber risk management
- GHG Emission Reduction
- Standards for Marine Environment Protection
- Cruise and Large Yacht
- Coatings and Paintings
- Coordination with IMO
- Coordination with other IGOs such as ISA, WCO

Knowing our
PARTNERS

VEGA

HAND IN HAND

Smooth-running processes in ship repair

Astilleros de Mallorca becomes a reliable partner and integrator for Vega "ship & yacht building" industry

When a yacht is handed over to be refitted or repaired, the owner would like to get it back as soon as possible.

This requires close, flexible collaboration between all parties involved and, above all, fast delivery of components. VEGA's adherence to delivery dates and the short delivery times of its sensors is particularly appreciated by Astilleros de Mallorca.

At Astilleros de Mallorca we are known for being a main contractor for all the processes involved in refit & repair. The customer receives his yacht back with all the desired modifications made, ready to sail away.

More than 200 yachts each year choose our tailor-made solutions, whether the refit takes place in the main shipyard in Palma, in the adjacent STP service area or Freire's facilities in Vigo. We dispose of an advanced project management system and appropriate workshops for electricity, engineering, woodwork, metal, piping, hydraulics, surface treatment, electronics as well as the processing of stainless steel. If a certain type of work is not part of our own portfolio, we source the specialists from our large network of subcontractors. The measurement of levels

naturally plays a major role on yachts, for example for measuring and monitoring the levels of fuel, fresh water, black and grey water and oily water in tanks, as well as the on-board ballast tank levels. The sensors signal when it's time to refuel, treat fresh water or dispose of waste water. The sensors are also indirectly responsible for the proper functioning of the engines, as they report any shortage of hydraulic or lubricating oil in the tanks.

Fast, tailor-made solutions

For all of these measuring tasks, AdM relies on VEGA sensors, since 2005. VEGA is able to promptly supply the optimal sensor for each measuring situation encompassed by the project. Since then, the Schiltach based company has been a reliable partner to the shipyard.

For the yacht specialists, measurement itself is not a problem, but rather the fact that they usually have to find within a very short time the right sensor for a particular measuring point. Short delivery times play just as important role as application know-how and the ability to correctly assess the measuring situation. In addition to this, the sensors they choose must be up to the challenges of the marine environment, i.e. resistant to salt water as well as the various fluids to be measured. For that reason, VEGAWELL 52, VEGABAR 82 and VEGABAR 86 are usually used for level measurements on yachts and VEGASWING 51 for point level detection.

These level transmitters also have a special feature that makes them particularly suitable for use in the tanks of superyachts. In general, tanks have irregular, contorted shapes and so it is essential to use sensors that allow linearization adjustment. Previously used sensors did not provide this option, and as a result they often delivered inconsistent information about the actual contents inside the tanks.

VEGA sensors, on the other hand, offer both local and individual linearization adjustment, independent of the display system to which they are connected.

Simple setup and commissioning

The collaboration with VEGA has been going smoothly for many years, with some sensors being installed and commissioned by VEGA and some by Astilleros de Mallorca's own metrology specialists. For the most part, we rely on the factory settings the sensors come with without the need to take test measurements or make adjustments. The technicians are only required to enter the volume data and the linearization curves of the tank into the parameters. After that, the sensor takes care of all the other setup functions and adjustments practically by itself.

Thanks to the trouble-free repair or refit processes, the ship owner enjoys two major benefits: being able to quickly get back the keys to the yacht and set sail again, and having reliable information about the contents of the utility and fuel tanks at all times.

Knowing our PARTNERS

ACCESS RAIL SYSTEM

Astilleros de Mallorca has been certified as an official "Harken Access Rail System" installer, in another step forward to provide a full range of quality services for superyachts and assist them to preserve the safety equipment for their crew.

The Access Rail Systems (ARS) have been widely spoken about over the past few years. This is because there have been some accidents and some of them resulting in fatalities for crew members. These systems, together with strong points or safety hooks, are used by superyacht crew members and workers to work over side, suspended or at height for window cleaning, antenna or ventilation grill maintenance, etc. This type of work is a high risk for the worker and in case of accident, the consequences can be fatal.

We have been working with this equipment for the last few years carrying out periodic mandatory maintenance and load tests, new installations and retrofits. The result of our gained experience is that as of September of 2018 we were officially named as a Harken International ARS installer team.

Due to the number of fatal incidents that have occurred over the years, these systems have become essential to ensure the safety of crew members. Flag States and Superyacht regulation bodies, have developed new guidance and regulations to ensure that the fixing systems and personal equipment are correct and crew members are trained to use them. One of the first guides to be published was the MGN 422 by the Maritime and Coastguard Agency (MCA) in 2010, which was superseded by the MGN 578 in 2017. Other Flag States have published their own guides, as is the case with the MSN 054 of the Isle of Man in 2015. The last Code covering these systems is the new Yacht Code published by the Red Ensign Group (REG) in January 2019, with a dedicated annex for over-side working systems, Annex B.

This last REG Code states that the ARS or safety hook has to be certified according to BS EN 795. Furthermore, the installation of the system to the yacht structure has to be certified as well according to BS EN 795. This statement is for both, new and existing installations, with retroactive effect. Subsequently, all uncertified ARS have to be decommissioned or replaced by a new certified ARS and any uncertified installations have to be certified from now on.

Astilleros de Mallorca, as a reference refit and repair shipyard for

superyachts, has found in Harken the perfect partner to assist us with work related to these systems. Harken is a prestigious brand famous in the yachting industry for manufacturing high quality deck hardware equipment, winches, etc. (mainly for sailing yachts). It is one of the few manufacturers with certified systems according to BS EN 795, both ARS and safety hooks. Additionally, Harken has a daughter company, Harken Industrial, which is dedicated to developing equipment for working aloft/at height for other industries, certifying all their equipment according to industrial standards. This is the reason why Harken is the reference brand for the ARS and safety hooks in the superyacht industry.

As a consequence of the new REG Code, Astilleros de Mallorca has already retrofit some rail systems covering the entire process: issue of installation drawing; pre-installation test to certify the installation; installation on board and final post-installation tests. Of course, all of these processes are coordinated with the Flag or Class surveyor, for the approval of the complete system.

If a superyacht has uncertified ARS or safety hooks, would like to have some assessment for a new installation or simply would like to carry out the periodical mandatory maintenance and load tests, do not hesitate to contact us. Our Harken certified team will be delighted to assist you.

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Authorised Economic Operator
for Customs Simplification

THE AEO CONCEPT

Astilleros de Mallorca is proud to announce that we have been granted the Authorised Economic Operator for Customs Simplification.

The AEO concept is based on the Customs-to-Business partnership introduced by the World Customs Organisation (WCO). Traders who voluntarily meet a wide range of criteria work in close cooperation with customs authorities to assure the common objective of supply chain security and are entitled to enjoy benefits throughout the EU.

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The EU established its AEO concept based on the internationally recognised standards, creating a legal basis for it in 2008 through the 'security amendments' to the 'Community Customs Code' (CCC) (Regulation (EC) 648/2005) and its implementing provisions.

The programme, which aims to enhance international supply chain security and to facilitate legitimate trade, is open to all suppliers. It covers economic operators authorised for customs simplification (AEOC), security and safety (AEOS) or a combination of the two.

With this, Astilleros' customs processes are accepted by local and national customs, guaranteeing our customers and suppliers that high standards are met on all the related custom processes, like TPA (inward processing), Importation and Exportation.

Furthermore, at Astilleros de Mallorca we are already preparing the application for a Bonded Store within our facilities. This will allow us greater flexibility to store materials and goods tax free, in preparation for refits and repairs, improving on delivery time and overall cost.

ASTILLEROS
Case Study

Jacuzzi onboard
Cocoa Bean

FABRICATION OF COMPOSITE LIGHTWEIGHT JACUZZI

Astilleros de Mallorca together with Trimarine and Bydgroup fabricated and installed a new composite Jacuzzi onboard Cocoa Bean.

An original concept design by LANGAN Partners, structural engineering and development by BYDGROUP, composite fabrication and installation by TRIMARINE, and Project Management, piping installation, systems installation, controls and electrical installation, outfitting, teak work and integration onboard by ASTILLEROS DE MALLORCA.
In order to make this project a success a 3D digital laser scan of the deck was carried out, including the surroundings and deck camber.

Out of this 3D laser scan the surfaces were remodelled so that they would have a tolerance of 1.5mm against the existing boat. Thus, ensuring a perfect fit on assembly.

A full 3D model was generated and engineered using Advance FEA to optimize the structure of the Jacuzzi and minimize its weight. After studying the stresses and deformations, lamination schedule and structure geometry were set which allowed the fitout of the machinery with no interference. The files were ready for fabrication.
A direct female mould, milled with CNC, was produced and had a tolerance below 1mm. The absolute precision of the construction process allowed us to build the parts in BYD´s composite factory in Lisbon, have the glass CNC cut in Valencia and everything assembled in Palma.

The lamination process was done using infusion technique, applying epoxy sandwich with PVC and sustainable PET cores with fiberglass. This technique allows placement of all the fibres and core dry on the mould and, once everything is laid, a vacuum bag is placed over the mould and the resin is spread with vacuum.

When impregnated and after the cure and post cure, the part is ready."

The assembly of the parts went smoothly and completed within one week. Due to the low weight and stiffness of the parts the final fitting was carried out manually by two people, reducing operational costs like cranes, man power, structures, etc. With the above-mentioned technique and preliminary preparation, all the spa could be installed and tested in less than 3 weeks, including all the teak deck modifications.

This process allows us to assess the boat anywhere in the world and prepare the parts decentralized so that the downtime of the boat in the yard is at its minimum.

REFIT & REPAIR SHIPYARD

ASTILLEROS DE MALLORCA

Proud Supporter of SAVE THE MED FOUNDATION

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