

The Superyacht

TRUTH • OPINION KNOWLEDGE • IDEAS AND EXPERT INDUSTRY ANALYSIS



REPORT

THE YACHT POLITICK

Justin Ratcliffe looks at the effects of politics – and politicking – on Italy's yachting industry.

RACE TO THE SUN

How the technology developed for Vripack's V20 – a solar racer – could be applied to the superyacht industry.

MEGA REFITS

Three of the world's top refit yards discuss their experiences refitting larger superyachts.

THE WINNING FORMULA

High-performance navigation technology and its impact on superyacht racing.

THE DAWN OF THE *Mega* *refit*

Refits on large yachts can be as complicated as new builds and require meticulous planning. *TSR* spoke to three of the world's leading refit yards about the process.

The refit market may not be booming, but it is currently faring a lot better than the other key market-performance-indicator sectors – new build and resale. This is largely due to refit's emergence as the most viable means of experiencing that 'new yacht' feeling under current market conditions. The upturn in refit has boosted demand for the 20 or so refit yards around the world capable of delivering that 'brand new' outcome.

While the overpopulated 30-45m motoryacht sector has seen many mediocre vessels lie idle, the 45m+ custom sector, alongside the niche sailing yacht fleet, adds up to a wide scope of refit work as the vessels near the end of their natural lifecycle or begin to wear.

Obviously these custom superyachts, particularly those in the upper echelons above 75m, present challenges in their own right when it comes to refit, and reduces the number of shipyards able to cope with the scale of the project. These vessels require a unique overhaul, and undertaking a major refit of a custom superyacht can be akin to embarking upon a two-year new-build project. For one,

the sheer number of personnel – yard employees, owner's representatives, crew and subcontractors – is a real management challenge and one that must be handled with adroit expertise.

Secondly, a common complaint on behalf of the refit sector takes on added relevance in the context of a large-scale refit: lack of preparation on the part of the manager or captain requesting the refit can have longstanding ramifications on both time and budgetary expectations. As capacity dwindles alongside rising demand, yard time is at a premium and ill-prepared spec sheets and worklists will only lead to disappointing results and owner/yard disputes.

The Superyacht Report spoke to three of the world's leading refit yards, all of which are well-versed in undertaking refits of very large superyachts, to recount their recent experiences and outline what a professional shipyard expects from a professional captain or manager preceding and during the course of a 'mega refit'.

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REMOVING THE TAILSHAFT

AMICO & CO

All too often a yacht will start refit/repairs with a generic 'wishlist' from the owner or captain, without a precise indication of the scope of the work. But if the specs are not detailed, the consequent yard quotation will just be an interpretation, which can lead to misunderstanding and, at worst, total and mutual dissatisfaction.

Managers should include a description of each job in the specs, accompanied by the various categories or departments: deck, engineering, interiors, painting and so on. The specs should also be presented to all those involved in the project, which will assist a great deal in the planning phase, especially if some of the material executors are contractors hired by the owner and therefore not directly under the yard's control.

Every project must be considered a 'one-off' project: every yacht has a different story, with its own captain and manager and owner, each having a different attitude and approach regarding the refit process.

Nevertheless, the initial premise can be considered as a guideline of how to initiate and manage a refit project.

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Amico is currently undertaking the refit/conversion of an 85m motoryacht, which started in November 2014. For this extended conversion, which includes lengthening, alteration of the superstructure, partial interior refurbishment and main engine and shaft line replacement, the owner's team began the preliminary specifications and drawing process last March.

The process leading up to the refit included the following:

- Meeting with the owner to get a preliminary indication of what he wanted to obtain from the refit.
- A survey on board with the designer and technicians from the owner's team to work out how feasible the project was.
- Preparation of the specifications and preliminary drawings. Flag and Class were considered in spec preparation and attention was paid to whether the proposed works could affect Flag and Class status.
- Specs supplied to yards for the quotation process.
- Yard visits on board, followed by preparation of a quote.
- After the choice of yard was made, meetings were held between the client and yard to clarify all of the details.
- After these final meetings, the final revision of the quotation was issued for signing.

The process of Flag and Class approval of proposed changes often causes delays in the design schedule. We worked on a previous refit where Flag and Class had differing and contrasting requirements, and finding an acceptable solution to that problem took time. In a large-scale refit such

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as this, a 'fanatical' approach to the planning and execution of every activity becomes paramount, especially when there are works that interfere with each other: metalwork on the hull and superstructure, painting, interior refurbishment, heavy engineering work, etc.



CUTTING THE HULL



LANDING THE ENGINES

With each project being a ‘one-off’, refit yards have the opportunity to learn a multitude of lessons and, over time, all of that experience becomes the ‘technical heritage’ of the yard itself and ensures that no experiences or skills learned are lost, especially when the yard has in-house teams. For example, the experience our painters have gained over the last 25 years shows when it comes to choosing the paint systems and products to be used.

Apart from the technical aspects, there are other factors that are key to a successful refit including communication, liaising well with the owner’s team, and regular progress updates. It is absolutely essential to be able to get a rapid response from the owner’s team, who are in direct contact with the owner, in order to avoid unnecessary downtime. Due to time constraints, the daily presence of the owner’s technical supervisor is fundamental in assisting the yard with real-time decisions.

Communication is crucial: right from the concept stage, all the people involved must be informed of what is going on and always be on the same page. Every captain and manager has their own preferred means of communication, style of billing and so on. Email is the best way for us to communicate, grouping in addresses to ensure nobody gets left out, and meetings are very important as well. Even brief, daily meetings can be

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helpful, to avoid any misunderstandings that could bring about a loss of time and money.

With the current 85m project, the yard conducts short, daily meetings, in which only essential information is discussed with the owner’s managers and all the people involved in planning activities. The owner’s managers have to be part of the team and understand that their role is not to be the yard’s adversaries but the people in charge of helping to solve problems, together with yard personnel, and maintaining the good relationship between the owner and the yard.

All of this advice results from 25 years of experience of working with captains and managers, who, with their constructive criticism, have helped us to improve and refine the refit process for everyone. The owner’s team and the yard’s team must work as one, with one common objective: ensuring the complete satisfaction of the owner. ■



MB'92

The perfect formula for any large-scale refit is for the captain or management company and the shipyard to complete the work in the shortest possible time, at the lowest possible cost, while ensuring the highest quality of work and owner satisfaction. In order to facilitate success, there are three key factors that can make a difference during the preparation stage and during the project.

Firstly, it is fundamental to have a clear and precise definition of the project. This will not only specify the work that needs to be done, but also the timeframe in which to do it. It is necessary to consider when the project will begin and when it will be completed/ready.

The second important point is the quantity and quality of information supplied. In the pre-project phase it is clear that the greater the amount of detailed material and information provided before the project, the more options, processes and plans can be provided before the work begins. Yachts that arrive with the engineering, design and refit already planned save considerable time/money. This preparation may even allow for the production of the pre-fabrications so they are ready for the arrival of the yacht.



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Finally, once these phases have been completed, one thing that allows us to work efficiently is having all the necessary paperwork, such as contracts, quotes and official documentation, including Class and Flag-approved drawings, as early as possible.

We have recently undertaken a large-scale refit project, which involved the modification and extension of the stern of a 78m motoryacht. The work included extending the overall length of the vessel by two metres and including a new swim platform and stern door.

The main challenge for the project was the timeframe available in which to complete the work; the vessel was at the facility for only three and a half months. Also, only a few detailed construction drawings of the stern areas were available. The existing stern area had to be scanned with the yacht afloat, so the underwater area was ‘unknown’, as were the thickness of the filler and most of the construction details.

When asked about the preparation and execution of the project, a representative from the vessel’s own

management team said, “For a project like ours, which required a large amount of fabrication and integration with the original structure, laser scanning the vessel was invaluable. The scan provided us with an accurate base model, which allowed substantial pre-fabrication and guaranteed alignment, which in turn allowed us to meet a tight schedule.”

In addition to the major modification and extension works, the vessel also had a secondary worklist to be completed during the project, which had not been taken into consideration when drawing up the main contract. As well as creating an overlap of work in the same areas, this increased the risks of the project substantially.

We were careful to produce a clear ‘responsibility matrix’ that included all the parties involved in the project (yard, client, subcontractors, managers, etc.) to make it clear who was responsible for what and to avoid any ‘grey areas’ that could result in problems, such as having part of the scope of the works not covered.

We encouraged fluid communication between all parties and ensured that everyone was kept informed about the schedule’s performance and how the works were progressing within the agreed schedule timeline, allowing us to quickly identify and re-direct any deviations from it.

This was vital due to the extremely tight timeframe, as all of the ‘unknowns’ created a need for constant re-scheduling and, in the case of some particular works, budget considerations such as the increase of costs due to work being carried out during night-shifts in order to meet deadlines. These factors forced all parties to make quick decisions during the project, which again relied heavily on efficient communication.

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FORESTAY REMOVAL ON M5

PENDENNIS

UK-based Pendennis undertook a two-year refit of 75.2m *M5*, the world's largest single-masted sailing yacht, which was completed in the spring of 2014. Among others, the yard is currently hosting 75.2m motoryacht *Northern Star*.

From experience, 70m+ refits place even more importance on having a skilled flexible in-house workforce, with the ability to accommodate the possibility of project growth. A good network of supporting contractors and clear communication between the owner's team and yard is also important.

As a yard, it is necessary to establish the best lines of communication with the captain, yacht manager or project team. This involves confirming roles and sign-off procedures for each part of the project and setting up regular project meetings to discuss implementations, timings, delivery schedules and change order protocol.

From the outset, the yard must be open about any concerns or issues it has with the yacht, even if it falls out of the initial remit of the refit. Seemingly small issues can have ramifications on the rest of the project. Equally,

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however, the owner's team must clearly identify the priorities within the scope of works.

For a 'mega' refit project to run as smoothly as possible, it helps if the management team is based on site, which is an advantage because any immediate issues can be discussed and resolved quickly. This also allows the captain or manager to work alongside the yard's project team to establish and maintain open lines of communication throughout what is a very substantial project. It is important to set up project document templates so that everyone working on the project is subject to the same standards of reporting.

The manager should make every effort to meet with all the project stakeholders as early as possible to agree on specifications, procedures, meetings and reporting protocol.

The shipyard should aim to keep the captain and crews happy socially, not just in the workplace. If they are going to be based locally for a long period introduce them to the local culture, help find appropriate accommodation, organise socials – make their yard time feel like a home-from-home. It's even better to organise socials between the shipyard and the owner's team so that they can get to know each other and work together in a fun and familiar way. That way the crew almost becomes part of the refit team whilst they are in the yard.

A yard will expect managers to work with it to agree a post-refit period of care, including warranty, servicing and long-term global support. The manager should make every effort to meet with all the project stakeholders as early as possible to agree on specifications, procedures, meetings and reporting protocol.

It is bound to cause problems when the captain changes the scope of the work whilst the project is underway,

and this can affect the delivery time and budgets. Equally, changing the personnel within the owner's team midway through a large project is only going to cause problems.

However, refit yards can uncover additional work required due to inherent issues unknown prior to refit and this should be expected. To avoid unwarranted work, ensure you recruit a yard that has a reputation for completing quality work and have flexible in-house resources to deal with project growth. Having things done on the cheap by inexperienced or 'fast' workers is often a false economy. ■



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EMAIL: TSR161@SUPERYACHTREPORT.COM
WITH SUBJECT: THE DAWN OF THE MEGA REFIT

NORTHERN STAR

