The future takes shape

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photography: Carlo Borlenghi, courtesy of Amels

IN THE SECOND OF OUR SERIES ON THE CONSTRUCTION OF THE LIMITED EDITIONS AMELS 199, WE FIND CONSTRUCTION AHEAD OF SCHEDULE

The construction of the first Amels 199 has moved on apace since we first wrote about Tim Heywood’s scimitar-bowed design back in issue 301 last July. Progress is running even better than expected according to Nick Flashman, a building captain of Imperial Yachts, the construction project managers for this project.

The whole process is going so fast, he says. The hull construction was completed four weeks ahead of schedule. We took the boat out of the water in November and by end of December the hull had already been faired from stern to stem, with three or four coats of filler applied. ‘It’s impressive how quickly it’s all coming together’.

This yacht will be quite different to the Amels 199 originally envisaged. Production on the first hull was already under way to the specifications laid down by the in-house Amels design team in conjunction with Tim Heywood. However, the owner wanted to make extensive changes to the layout, notably the addition of a touch-and-go helipad on the foredeck, an enclosed lounge on the sun deck, and a central staircase to connect all levels from the lower deck up to the sun deck.

Despite the steel already having been cut and the early stages of production well under way, it was still possible for Amels to accommodate these significant alterations, as project manager Adriaan Roose explains: ‘With almost 30 people working in the in-house design team, we put tens of thousands of man hours into the original design and engineering plans for the boat. This gave us a strong design base to work from, so when it came to customising the deckhouse and helideck, it only took us an additional 5,000 hours of design time to make those changes to hull No.1.

This may represent a huge commitment of time to the design process, but Roose says that this high level of advance planning more than pays for itself during the construction phase. ‘With a typical custom build, you design as much as possible up to a certain cut-off date, and then any further changes need to be made during the build process. That inevitably requires an element of re-engineering and working around existing problems that could have been avoided with a longer and more detailed design phase.’
Superyacht Design

As the hull takes shape (right) its narrow bow and longer waterline become clear. It’s a construction challenge, but as tank testing (above) proved, it greatly enhances speed and efficiency.

Part of Amels’ design phase is to produce a sophisticated 3D model that integrates all the technical systems into the plans at a very early stage. All the systems that go into the boat – the air-conditioning, the water drainage, hydraulics, electrics – every pipe is included at the 3D Cadmatic stage, says Roose. This enables us to optimise the use of the internal volume and effectively create a larger, more spacious yacht for the owner to enjoy.

An example is the centralisation of the Amels 199’s air-conditioning system into one space. ‘Most 60 metre yachts would have five or six separate AC spaces located throughout the boat,’ says Roose. ‘Not only does this take up a lot more interior space, but the maintenance schedule is much bigger. The feedback we’ve had from ship’s engineers and captains is that they really like one big piece of equipment in one space, and of course we’re helping maximise the luxury space in the yacht too.

Making the most of the interior space is something that Amels prides itself on achieving, according to Roose. Amels is known for its sleek, streamlined designs. We want to build a boat with a certain kind of aesthetic, which of course results in a certain main dimension, the length, the breadth, the depth and so forth. Of course, at the same time we want to build a boat that brings all the comfort you could want, so to achieve both aims – the interior comfort without spoiling the exterior aesthetic – takes a lot of attention to detail. With the Amels 199, we spent a lot of time investigating how we’d layout our spaces, and decided to use a very specific roll stabiliser from Quantum, with an extra hydraulic flap that increases the surface of the wings. It enables us to build a slender hull with the seakeeping performance of a wider body.

It was Tim Heywood who envisaged the so-called ‘scimitar bow’ for the Amels 199, and it was up to the in-house design and engineering team to execute it. Adriaan Roose explains the engineering challenge:

‘The bow is narrow, and it’s complex to build, from a welding and construction point of view. But then there are the benefits of a longer waterline which gives the hull the same efficiency as a typical superyacht of say 67 metres in length. In tank testing the hull proved to be quick and made little fuss through the water, with a minimum continuous speed of 16.5 knots, but which should exceed 17 knots without much trouble. With the hull running a little faster than expected, we found occasionally that water could creep up the bow,’ says Roose. ‘So we added a spray rail, a common feature on boats that sail a bit faster. Then we asked Tim Heywood to work on an aesthetic design for the spray rail, and it has become a feature clients have really responded to. It gives the Amels 199 a bite and an edge, and shows that it means business.’
The vessel is classified for worldwide unrestricted service, and Roose describes the Amels 199 as a ‘go anywhere’ yacht.

Meanwhile Imperial says it is happy with the progress of the project and the quality of the construction. The yacht is due for delivery in April 2013. ‘Delivery time and cost were big factors for this project,’ says Evgeniy Kochman, CEO of Imperial Yachts. ‘The owner is happy with the quality and knows that he’ll get a reliable boat and good value from Amels. Tim Heywood’s design is something unique, something you just won’t see anywhere else. From every point of view it looks different from your conventional, flared-bow superyacht.’

The man behind the radically beautiful shape of the Amels 199, Tim Heywood, was delighted by the photos of his creation as it emerged from the shipyard. ‘For any designer it is an incredible moment when paperwork turns into steel, especially when the results mirror my drawings and sketches so exactly,’ he says. ‘I have watched her grow from pencil lines on a piece of paper, through the yard’s technical department and onto the construction hall. She is a very important project for us all, but even more so for me.’