

The Superyacht

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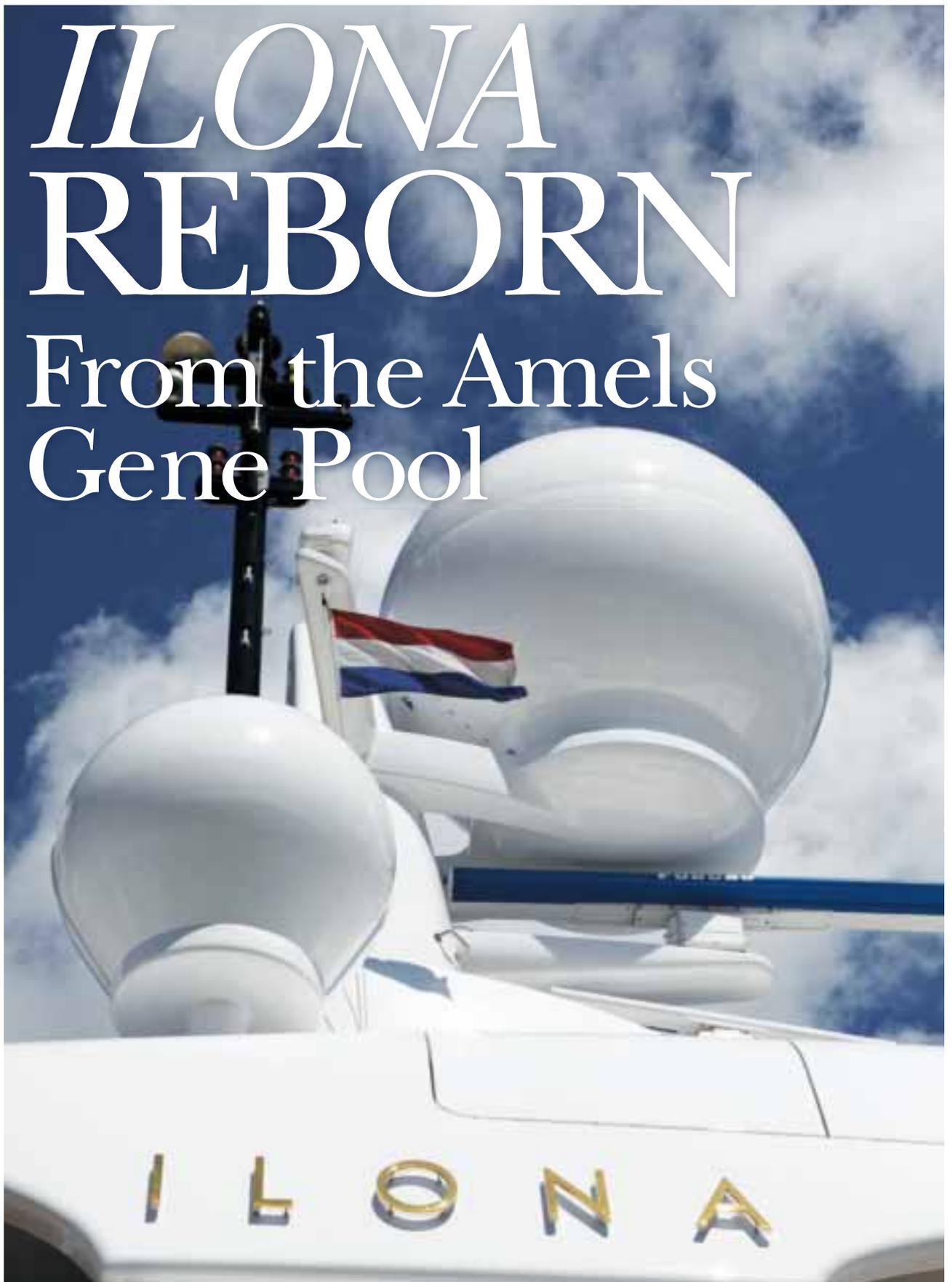
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ILONA REBORN

From the Amels
Gene Pool



The recent extensive refit of *Iлона* at Amels is a study in how preparation and attention to detail can deliver a finished product that exceeds expectations – including those of the owner. **Don Hoyt Gorman** stepped aboard in London to inspect the remarkable remaking of a spectacular yacht.

Over nine months between August 2011 and May 2012, *Ilona*, the full-custom 73.7m Amels motoryacht launched in 2004, went under the torches for a colossal bit of re-engineering. The goals were simple, even if the works would cause trauma over every deck and ultimately affect every system aboard: insert a swimming pool where the hydraulic heli-lift and storage bay had been on the main deck aft, and add a new touch-and-go helipad to the flydeck.

A pool on board provides owners and guests a safer way to swim, without the risk of injury that can come with boarding a swim platform from a sea with surge or current. So in 2008, the owner's team started to consider some options with the yacht's original designers, Redman Whiteley Dixon (RWD).

The obvious place for a pool was the main deck aft, but *Ilona* had been designed and built with a highly complex and innovative hydraulic heli-lift and garage in that very space. The mechanism – a dizzyingly inventive piece of engineering that lowered the landed chopper into the hull, like putting a foot into a shoe – was perhaps the singular feature of the yacht's identity. It also was designed to accommodate the

owner's requirement to travel with his aircraft, again for safety and comfort. The stowage hangar kept the chopper sheltered from salt water and air.

The owner's previous yacht had cruised extensively, so when he decided to build a new yacht (his fourth), the helicopter garage had been a key requirement. But by the time the idea of the pool surfaced, the idea of shipping the chopper to the yacht had become a viable alternative, and the elaborate heli-lift was no longer an absolute necessity.

Redman Whiteley Dixon project manager Arne Erdbeer, who worked on *Ilona* when she was originally built at Amels, was the perfect match for this refit project with his inherent knowledge of the yacht from inception. "We'd met the owners during the build of the third *Ilona* at Pendennis in 1997 through 1999," Erdbeer told me, sitting in the new *Ilona's* crew mess. "The owners were really very focused on not messing up the yacht; not changing things in a way that would have any kind of negative impact on its liveability, both for themselves and for the crew, many of whom have been with them since delivery. So we really took time to find the right solution for the pool and helipad."



"The next big challenge was coordinating the emptying of the yacht in the areas we needed to get access to... and that was pretty much everything aft!"

ABOVE & BELOW: *ILONA'S* AFT SUPERSTRUCTURE, DECKING & PARTS OF THE INTERIORS ARE DISASSEMBLED & READIED FOR THE NEW STEELWORK.





ROB LUIJENDIJK, MANAGING DIRECTOR OF AMELS (LEFT), WITH DAVID MCQUEEN OF MOTOR YACHT BUILD, THE OWNER'S REPRESENTATIVE, UPON DELIVERY OF ILONA.

Diverse concepts were drawn up. Pool location options included the port-side tender bay, up forward on the owner deck, aft on the owner deck, an elaborate piece of engineering putting it on top of the heli-lift, and inside lower aft. After considering all these options, and the idea of a shadowboat, the owners decided on option six at the end of 2010: "Pool on main deck aft, new helicopter platform and extended superstructure".

It was then a matter of selecting a yard. After the usual round of options, the owners decided to return the yacht to its birthplace in Vlissingen, and to the Amels yard. "RWD was really pulling for Amels," Erdbeer said. "We just knew the project would benefit from the same processes and familiarity with the materials that we'd seen during build; and we'd experienced their strong management process, which we felt was crucial to keep this really very complicated project together."

Captain Kenan Seginer, who worked with the yard during the refit, saw it as a particular challenge for the yard, which has built recent success on shifting new-build production to platform building LIMITED EDITIONS lines. "Amels really worked hard to get this contract, I think," Seginer said, "and while they're definitely selling refit, the fact is they've left the full-custom game, so we knew this project was going to require

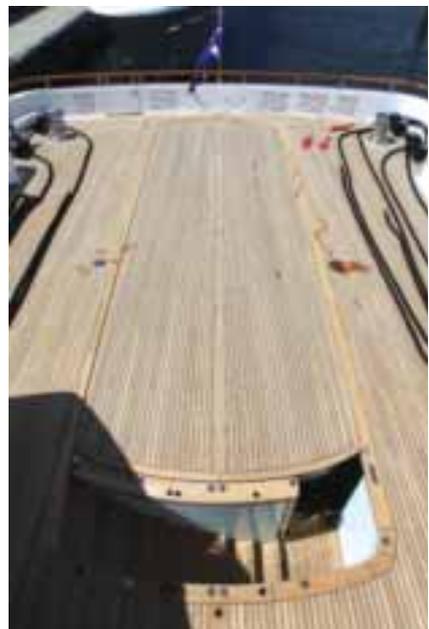
some serious heavy lifting from yard management."

With Amels having shifted their new build works to a very successful LIMITED EDITIONS programme, the owner's representative, David McQueen of the yacht-build consultancy Motor Yacht Build, was cautious when selecting a yard for the extensive custom works. "I was a little concerned at the beginning of the project, but with my experience of complex builds and Amels' infrastructure of sub-contractors and facilities, we were able to complete the refit on time and to the quality and detail we all expected. This despite the fact that Europeans have more holidays compared to Australians!

"I think the decision to go with a touch-and-go helipad and a programme of delivering the aircraft to the yacht wherever she is in the world via freight has been a very good solution for the operation of the vessel based on the owner's use," McQueen said. "The refit has opened space, established a new 'heart' to the boat, based on owner use, and hasn't impacted negatively on the yacht's lifestyle or appearances. It really achieved more than anyone thought it would: it's enhanced the vessel, including its look."

"It was indeed a challenge," said Frank van Loo, the project manager at Amels

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THE YACHT'S NEW POOL IS READIED AND INSTALLED. SCHELDE EXOTECH, WHICH OTHERWISE HANDLES SPECIAL PROJECTS IN PETROCHEMICALS AND PARTICLE PHYSICS, MANUFACTURED THE DUPLEX STEEL POOL.

who handled the *Ilna* refit. “When I started at Amels six years ago, there was a clear vision to develop refit as a second line of work for the yard, preferably on Amels yachts. But, yes, it’s very different from the work we do on LIMITED EDITIONS.”

Amels laid out the big lines of the project in April last year, ahead of the yacht arriving at the yard. The pre-construction drawings and designs of the pool had begun, as had the upper deck extensions and the new helideck. “The big challenge was to get actual construction started well in advance of the yacht’s arrival,” van Loo said. “The next big challenge was coordinating the emptying of the yacht in the areas we needed to get access to... and that was pretty much everything aft!” Amels needed to extract the heli-lift and hatches and trim off the aft upper decks to make room for their extension parts. They lifted the teak decks, disconnected the lighting and plumbing and removed interior panels and furnishings.

The timeline of eight months for the refit, from September 2011 to May 2012, meant that the ‘hot works’ – the cutting and welding – needed to be done by the end of December. Amels managed to stick to schedule. “I can’t tell you exactly how many kilometres of piping we removed from that heli-lift hydraulic system, but it was unbelievable,” van Loo said.

One risk with the decision to go with Amels was the typical barrier to entry that all of the northern European yards suffer: distance from cruising grounds. It’s 10 days in and 10 days back out to the Med, but the owners knew they wanted to be in London for the Olympics, so that saved a bit of time at the end.

By the time I arrived aboard in London’s Canary Wharf in August, the yacht had hosted dignitaries and the crew were well and truly working the yacht’s hospitality regime hard. “The owner just really loves this new space,” Seginer said. “The whole space beneath the helideck has really become a wonderful open, yet still private space. And now that the main deck aft is less of a technical area

and a real centre for recreation, the whole heart of the yacht has moved out there. It’s been fantastic to see and feel how this refit has changed – improved, really – how the owners and their guests use the yacht. It just works really well.”

The 10m pool is a marvel of engineering itself, tucked into the space formally occupied by the heli-lift. When not in use, the deck is flush, with only the outline of the pool’s edges indicating its existence. At the push of a button hidden under a hatch on the port bulwarks, the decking over the pool begins to drop slowly, water bubbling up over the edge of the teak and spreading across its surface. In minutes, the deck has dropped to its full depth of 1.3m, and the pool lights come on. Two deck sections at the forward end of the pool are manually detached by crew and lifted away to reveal the staircase that descends into the pool.

The Amels team installed the pool’s floor movement, water-treatment and heating systems, and Amels’ neighbour, Schelde Exotech, manufactured the duplex steel structure in Vlissingen. The space beneath the pool – what was part of the chopper garage – holds all of the treatment and heating equipment and electrical systems.

“This pool has 288kW of heating power in titanium,” van Loo explained, “because the pool is filled with sea-water.” The pool’s disinfectant system utilises the latest boron-doped diamond cell technology, which produces oxidants and disinfectants from the seawater itself. The seawater is run through two large sand filters with hydrocarbons to scrub out any green seawater colouring, and a UV light filter, which destroys algae. The whole volume of the 40,000l pool can be filtered through once in an hour.

The heating system is impressive as well. If the yacht is in the south of France, where seawater is typically 23 degrees, and the owner wants to swim in 29-degree water, the heating system will raise the water temperature by one degree every nine minutes, achieving

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the six-degree increase in one hour – the same amount of time it takes to filter the seawater once. Depending on water conditions, the pool may need to be filtered three or four times before it's ideal for use.

Three decks up, the new helideck sits atop an extended bridge-deck, which itself sits atop the extended owner's deck – all designed to keep the line of the yacht's superstructure as she slopes down to the main deck. *Ilona* had originally been designed with a forward-set superstructure, providing a long, low line aft for the chopper. However, with the new helideck up top, the superstructure needed to compensate and be extended aft. According to Erdbeer, for the team at RWD, the hull extensions to the superstructure were initially about maintaining the line, but the resulting spaces are seamless, appearing to have been part of the design from the outset.

The installation of the helideck required extensive engineering as well. Not only did the added structure add weight, the deck itself needed to handle the weight and downforce of an Agusta GrandNew aircraft.

The loads needed to be spread and distributed down through the superstructure.

“RWD's design for the new helideck consisted of four pillars supporting it from below on the bridge deck, and the load was then distributed through bulkheads,” van Loo explained. “But during the process, we came to the conclusion that we wanted to omit two of these four pillars. We actually added steel pillars down to the engine room bilges to carry the weight of the helicopter, as well as a beam-width girder in the engine room overhead, which is hidden from view.”

There remains a bit of work to be done on the helideck. Seginer wants to see it set up for better night ops, with lights in the deck. “We've been seeing that we're using this deck more in low-light conditions, and I'd like to make sure we're as set up as we possibly can be for those situations.”

On both the bridge deck – immediately beneath the new helideck – and the owner deck below it, the curves in the overhead were key to getting the feel of the space right. “If you'll notice, it's cambered in



ABOVE: TRANSPORTING, TURNING & INSTALLING THE HELIDECK

BELOW, MAIN IMAGE: HELIDECK POST REFIT & (INSET) PRE-REFIT



two directions,” Erdbeer pointed out. The overheads curve up to the aft and outboard, giving just a subtle hint of opening to the air around the yacht, and avoiding the sense of being closed in under the superstructure. The stainless-steel-clad pillars on the bridge deck, which support the helideck above, house an amazing array of pipes and wires for the heli-ops. “Inside those pillars are the scuppers for the helideck, the fuel lines for the helicopter, and the firefighting systems, all of which had to be rerouted three decks up from where they’d previously been,” van Loo explained.

“All the engineering just fell into place,” Erdbeer said. “It was far less complicated, we feel, than what we might have expected. We were lucky that the design we’d envisaged worked so well with the existing structure of the yacht. We needed to add some structural elements, of course, but it wasn’t as traumatic as it might otherwise have been.”

When she was designed, *Ilona* was RWD’s first exterior lines design for

a superyacht. They’d brought in a talented ALLIAS designer from the automotive industry to work on the 3D modelling, who had quickly grasped the proportions and curves the team were looking for.

The helideck was painted silver to help it disappear against backgrounds. It’s a common use of illusion on yachts, but seems to work remarkably well here, perhaps also due to the curved underside of the deck, which forms the overhead of the aft bridge deck lounge area.

On the bridge deck, there had been a Jacuzzi overlooking the helideck on the centreline aft. RWD had designed a bevelled notch in the owner’s deck below, to complement and reflect the position of the pool, so the Jacuzzi was moved to the newly available space to port on the owners’ deck. “The Jacuzzi is sunk into the owner’s deck to meet the bulwarks,” Erdbeer pointed out as we examined the refit deck. “It’s the same model as they’d had previously on the centreline the deck above, so, for them, the use was identical. That was important.”

“You know, during this refit,” Seginer said, considering the finish on the owner’s deck aft, “we ended up playing with the electrics, hydraulics, cabling, plumbing, the lighting. This refit ended up touching every single system in some way. It was huge – and look at her now. Amels have done a really fantastic job. The owner is happy, the crew is happy and she looks fantastic. It’s been such a successful refit.” ■

Images: Amels, *Ilona* & Mark Johnson

To comment on this article, email issue138@superyachtreport.com with subject: *Ilona* Reborn

ILONA AMIDST THE OLYMPIC CELEBRATIONS IN LONDON THIS SUMMER.

