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THE BALTIC LOG

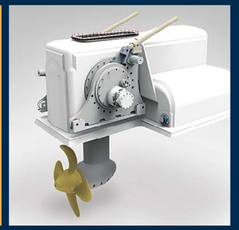
Lighter, stiffer, faster – together

LIFECYCLE SERVICE

10

NEWS HIGHLIGHTS

23



Front Cover:

DORYAN

Successfully launched 2014.

On Watch

A Winning Combination

The Finnish culture is not one for outward displays of self-congratulation, but is characterised more by reservation, self-deprecation and humility. An important part of my role here at Baltic is to ensure that the build teams, from project managers and foremen through to the factory floor personnel, are provided with feedback about our yachts – their creations - once they have left the yard. I believe this helps motivate the workforce to seek new and better ways of building yachts and to urge them to go that extra mile to ensure a world-class product.

This newsletter makes no excuses for highlighting and celebrating some of the success recently enjoyed by our clients on the race courses of the world. Performance orientated yachts have always been the norm here at Baltic, but increasingly we see them performing at high profile regattas across the world. Our vision - "Lighter, Stiffer, Faster – Together" - reflects perfectly the elements required for success.

The key to success, like most things in life, revolves around the team. The winning combination starts with the dedicated boat builders whose mindset and ethos ultimately provide a lightweight boat and, importantly, a strong and reliable boat. Baltic's Production Manager Tommy Johansson explains elsewhere in this newsletter how our practices on the shop floor are constantly evolving and developing to ensure the best possible product.

Our Lifecycle team, based both here in Jakobstad and in Palma, Mallorca, are heavily involved in helping owners and their teams to not only maintain their yachts, but also update or modify them as they continuously strive to find that small gain that could translate into success and reliability on the race course.

Not all our yachts race or will race. Many prefer to slip quietly from one secluded anchorage to another. However, what we can be sure of is that all are benefiting from the developments taking place in the quest for a better performance on the race course.

Henry Hawkins

REGATTA SUCCESSES

Owners enjoy **spectacular success** on the race track as evergreen Visione wins St Barths Bucket and WinWin takes first race


WinWin. Delivered in 2014.


Visione. Delivered in 2002.

There can be few more satisfying experiences in yachting than standing on a regatta podium with the spoils of victory held aloft. For owners and crew it represents the culmination of a long and carefully managed project and for the builders back at Baltic in Jakobstad there's immense pride in playing a pivotal role in a job well done.

In the past few years Baltic Yachts have been impressing at regattas around the world not least at the iconic St Barths Bucket this year where the Javier Jaudenes-designed Baltic 108 WinWin won her first ever Bucket race. Were it not for a rules infringement in the second race, in which WinWin also crossed the line first, she could have won the event outright.

Instead, by a quirk of fate, WinWin's error let the immensely impressive 2003 vintage Baltic Yachts 147ft Reichel Pugh-designed Visione through for a much deserved and popular first ever overall win at the event.

Visione first took part in the Bucket in 2004 and after 12 years, in which supersailing has exploded as a sport, she is now the boat to beat having scored a couple of seconds in the past but never able to overcome the rating odds. But this year two wins and a second for owner Hasso Plattner and his team were enough to take the trophy. Congratulations!

WinWin came so close at St Barths but in the end had to settle for 4th behind arch rival Inoui, the Briand-designed 108-footer. Back in the Mediterranean revenge was sweet when she beat Inoui to take second place in the Loro Piana Superyacht Regatta in Sardinia and at the Superyacht Cup Palma a 2nd and a 3rd put her a respectable 7th overall in a tough fleet. And there's certainly a lot more potential to be realised in this super-quick multi-role yacht.

RESULTS

WinWin

St Barths Bucket 2015	1st in Race 1
The Superyacht Cup Palma 2015	3rd in class, overall 7th
Loro Piana Superyacht Cup 2015	2nd

VISIONE

St Barths Bucket 2015	1st in class A and overall
The Superycht Cup Palma 2015	6th in class B
The Superycht Cup Palma 2014	4th in class
The Superycht Cup Palma 2014	7th in class
Loro Piana Superyacht Regatta 2013	6th
Loro Piana Superyacht Regatta 2011	3rd
Maxi Yacht Rolex Cup 2011	2nd, supermaxi
St Barths Bucket 2010	16th
Antigua Superyacht Cup 2010	Overall winner
Maxi Yacht Rolex Cup 2010	3rd, supermaxi
Maxi Yacht Rolex Cup 2010	2nd, supermaxi
St Barths Bucket 2008	3rd in class Les Gazelles, Spirit of the Bucket Award

> "...In the past two years Baltic Yachts have been impressing at regattas around the world not least at the St Barths Bucket where the Baltic 108 WinWin won her first Bucket race..."

Looking back to last year and beyond, two other Baltic Yachts' builds have been outstanding. The Baltic 112 Reichel Pugh-designed Nilaya, which has just arrived back in Jakobstad for a refit, won her class in the St Barths Bucket and the Loro Piana BVI event in 2014, was first in the super-maxi class in the Maxi Rolex Worlds in Sardinia in 2011, 2012 and 2013 and took line honours in the 2012 Volcano Race (see panel for more results).

The Reichel Pugh-designed Lupa of London, built in 2000, has also notched up an impressive race record, 2014 being particularly rewarding when she won her class in the Voiles de St Barths, took line honours and 1st in IRC Overall in the Royal Ocean Racing Club's Transat Race and won the racer/cruiser class at the Rolex Maxi Worlds in Sardinia (see panel for more results).

All these yachts are kept on the pace by a constant programme of improvement and maintenance undertaken by the owners, crew and Baltic. For instance, Visione's regular updates which have included a new rig, new rudder and the use of many superyacht innovations like high pressure inflatable jib battens, typifies the work carried out, often with assistance from by Baltic's Lifecycle Service team which operates globally from centres in Jakobstad and increasingly in Palma where Matthew Lester and his expanding team are ready to take on any job! (see page 10 for more detail).


Nilaya. Delivered in 2010.


Lupa of London. Delivered in 2000.

RESULTS

Nilaya

St Barths Bucket 2014	1st in class
Loro Piana BVI 2014	1st Class A and overall
Maxi Yacht Rolex Worlds 2013	1st super maxi
Maxi Yacht Rolex Worlds 2012	1st super maxi
Volcano Race 2012	line honours
Voiles de St Tropez 2011	1st superyacht class
Maxi Yacht Rolex Worlds 2011	1st super maxi
Superyacht Cup Palma 2011	1st class 1

Lupa of London

Voiles de St Barths 2014	1st Maxi 2
RORC Transat Race	1st IRC overall, line honours
Maxi Yacht Rolex Worlds 2014	1st racer/cruiser
Giraglia Rolex Cup	1st combined class IRC 0
Maxi Yacht Rolex Worlds 2013	1st racer-cruiser
Rolex Fastnet 2013	2nd IRC Canting Keel
Rolex St Thomas Regatta 2013	1st IRC 1
Heineken Cup Regatta 2013	1st CSA 1
Rolex Middle Sea Race 2012	3rd IRC 1

BALTIC 115 and 130

due to raise the bar

With the Baltic 115 successfully launched and the equally high performance Baltic 130 hot on her heels, these powerful, comfortable cruiser racers are likely to raise levels of competitiveness on the race course.

Launched on time, on budget and on schedule to make the start of the Caribbean 600 race this winter, is how project manager Nigel Ingram of MCM described the successful completion of the new judel/vrolijk designed Baltic 115. Commissioned for a combination of offshore racing, round the cans competition and comfortable cruising, the 115's deck and interior styling and ergonomics have been masterminded by Mario Pedol's Nauta Design. Nauta are also responsible for the 130's deck and interior.

Both yachts will benefit from the latest thinking in rig design from Southern Spars. Project manager Nigel Ingram explained that there is increasing demand for fully-tuned race rigs on superyachts enabling crews to switch 'modes' between racing and cruising. This means that in cruising mode a detachable moulded carbon crane can be fitted to the masthead to accept a single, fixed backstay for a conventional 'pinhead' mainsail, but in race mode the crane is removed so that running backstays can be fitted to accept a 'square-topped' mainsail and provide more effective tuning on the race course.

Under the water, both boats have lifting keels but in the case of the 130 the designers Reichel Pugh set Baltic a challenge to support a keel fin which features an uninterrupted chord taper from top to bottom. This means there is far less surface area for the lifting mechanism to support when it is in the up position. Baltic, in conjunction with specialist keel manufacturers APM set to work to design and build a keelbox to cope with the increased loads. Installation is due shortly as the two halves of the carbon hull shell come together. According to Nigel Ingram, the advantage of the fully tapered fin is a marked increase in predicted performance shown in the VPP (velocity prediction programme).

TECHNICAL B115

Dimensions

LOA	35.00 m
DWL	32.52 m
BEAM	8.07 m
DRAFT	3.65/5.85 m
LIGHT DISPLACEMENT	88,000 kg
BALLAST	33,000 kg

- **Naval Architect:** judel/vrolijk & co
- **Deck & Interior Design:** Nauta Design
- **Project Management:** Nigel Ingram, MCM
- **Project team at Baltic Yachts:** Project Manager: Mathias Flink Project Engineer: Jan Vidjeskog
- **Number of cabins:** 1x owner, 1x VIP, 2x guest, 3x crew
- **Delivery year:** Autumn 2015

The Baltic 115's accommodation is dominated by clean and simple styling using a combination of light oak veneers and linen over extremely lightweight foam cored panels. The owner and main guest accommodation is forward of the saloon, which features a spectacular bar area. Aft there are two guest doubles and crew accommodation for five. The use of substantial hull and superstructure ports and large windows either side of the companionway provides a substantial amount of natural light enhancing the effect of using light coloured materials.

Project manager Mathias Flink reports that improved noise reduction is a feature of the 115. Special attention has been paid to improving cabin sole boards which 'float' on rubber insulators free of the carbon hull shell and Baltic have been working closely with engine manufacturers to find ways of reducing vibration at source by changing the position of engine mounts.

With the 115 about to leave Finland, the Baltic 130 is about to see the two-part hull and deck mould brought together. This build technique allows easier, faster and more accurate cabin module and equipment installation and by incorporating the side decks into the hull mould, cable, pipe and air conditioning trunking runs can be completed much earlier in the overall build schedule. In addition control of component weight and weight distribution is made much easier.

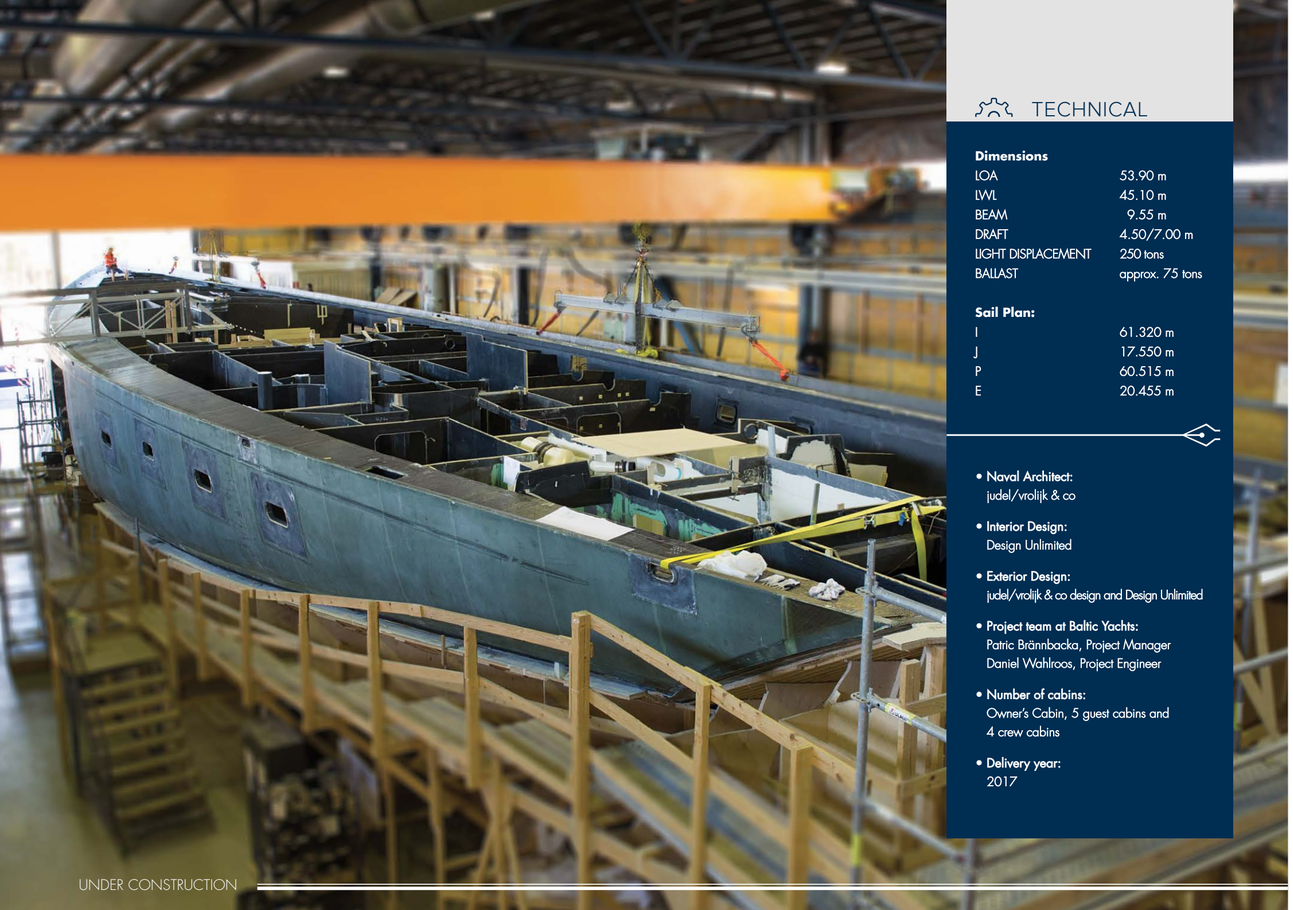
It's fair to say that both these yachts are destined to demonstrate a considerable leap forward in performance as they join the superyacht fold in 2016 and 2017.

TECHNICAL B130

Dimensions

LOA	39.60 m
DWL	36.80 m
BEAM	8.60 m
DRAFT	7.00 m
LIGHT DISPLACEMENT	99,107 kg
BALLAST	41,200 kg

- **Naval Architect:** Reichel Pugh Yacht Design
- **General, Deck & Interior Design:** Nauta Design
- **Structural Engineering:** Reichel Pugh Yacht Design/Gurit
- **Project Management:** Nigel Ingram, MCM
- **Project team at Baltic Yachts:** Håkan Björkström, Project Manager Sören Jansson, Project Engineer
- **Number of cabins:** 6
- **Delivery year:** 2016



UNDER CONSTRUCTION

TECHNICAL

Dimensions	
LOA	53.90 m
LWL	45.10 m
BEAM	9.55 m
DRAFT	4.50/7.00 m
LIGHT DISPLACEMENT	250 tons
BALLAST	approx. 75 tons

Sail Plan:	
I	61.320 m
J	17.550 m
P	60.515 m
E	20.455 m

- **Naval Architect:** judel/vrolijk & co
- **Interior Design:** Design Unlimited
- **Exterior Design:** judel/vrolijk & co design and Design Unlimited
- **Project team at Baltic Yachts:** Patric Brännbacka, Project Manager Daniel Wahlroos, Project Engineer
- **Number of cabins:** Owner's Cabin, 5 guest cabins and 4 crew cabins
- **Delivery year:** 2017

PINK GIN VI

literally coming together

The three parts of this 175ft long hull have just been bonded together as the biggest carbon fibre sloop in the world takes shape. Here's the latest progress report.

Barring the 60m/197ft Hetairos, Pink Gin VI at 53m/175ft is the largest yacht we have ever built at Baltic and when she is launched in 2017 will be the biggest carbon fibre sloop in the world.

You may be asking how we can be so sure the three hull pieces will fit together considering they have been laid up in separate custom built moulds? By creating a 3D scan of the sections using an electronic wand we've built up an overall picture to determine the exact shape and dimensions of the hull parts and have allowed for a 5mm tolerance over the 175ft/53.34m length. Once the joins are made with overlapping layers of carbon fibre and the hull and side decks become one piece, the maximum deflection over the whole length of the 18-ton shell will be just 76mm.

> "...The A3 asymmetric will weigh in at 270kg and in terms of area cover more than seven tennis courts!..."

So if the foam-cored, carbon fibre hull and deck weigh just 25 tons, what makes up the remaining 230 tons? Project manager Patric Brännbacka explained that the lead bulb alone will weigh 53 tons, the stainless steel fin 18 tons and the three hydraulic cylinders used to lift and lower the keel combined, 1.7 tons. The keel locking mechanism adds another five tons leaving accommodation fit out, rig and deck fittings making up the remaining 105 tons or so.

Despite the vast scale of this project, it is essential that every component from pumps and tanks to fridges and winches is not only weighed but has its centre of gravity accurately measured so that weight and weight distribution match the analysis and predictions made at the design stage. Only by doing this can the overall centre of gravity (COG) and thus centre of buoyancy be accurately controlled.
By building the hull in three parts, equipment installation is easier, faster and more accurate and, in turn, weight monitoring is more effective. The entire yacht is regularly weighed on a set of eight special scales.

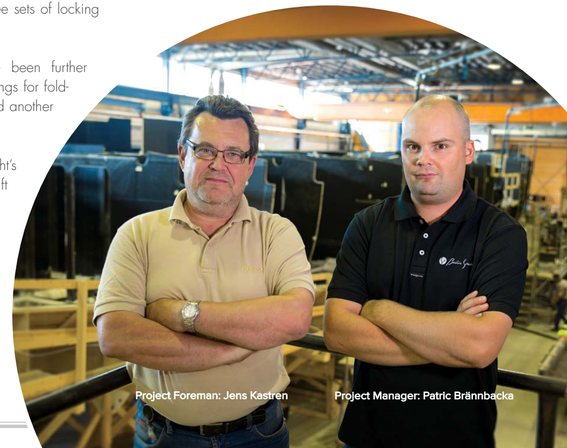
Like any yacht with a lift keel, engineering the keel box is critical and in this case it took no fewer than eight months to construct using more than 200 layers of carbon fibre to build up a 12cm solid matrix in way of the three sets of locking pins. The keel box alone weighs 2.5 tons.

The topsides sections of the hull have been further complicated by the inclusion of two openings for fold-out platforms, one in the owner's cabin and another in the saloon area.

Another extraordinary statistic is the yacht's mast height of a staggering 68m or 223ft from waterline to truck. Imagine a J Class rig at about 170ft and you get some idea of what it will look like. The yacht will be fitted with in-boom furling by Rondal with hydraulic 'claws' at the luff and leech sharing the load when the sail is reefed. The A3 asymmetric will weigh in at 270kg and in terms of area cover more than seven tennis courts! The sail will be stowed on a custom-built drum set in the forepeak.

Although the Pink Gin's hull is barely complete, 35 per cent of the accommodation has already been built in-house outside the yacht, each cabin treated as a separate module. Mark Tucker's UK firm Design Unlimited won the contract to design the interior and although much of the detail will remain under wraps until nearer launch date in 2017, stained oak features throughout the accommodation as do fabric covered bulkheads, oak soles and bronze finishing in the cabinetwork.

Pink Gin VI is a monumental project but with the modern methods of design, engineering and construction now employed at Baltic Yachts will be one of the most accurately built vessels of her size and type representing a new benchmark for super sailing yachts.



Project Foreman: Jens Kastren Project Manager: Patric Brännbacka

Lifecycle Service

Nilaya will be as good as new

The importance of after sales service and re-fit has led to expansion at Baltic's Palma Lifecycle Service base and a busy winter in Jakobstad.

As one new yacht (the Baltic 115 – see page 6/7) is lifted into the water at Jakobstad so another is lifted out, this one the highly successful six-year-old Baltic 112 Nilaya. She will be undergoing a three-month programme of improvement and service including a new teak deck, the provision of three new topsides portholes, a topsides and deck repaint and the installation of a new B&G instrument system. Her interior will also be completely refurbished.

Nilaya. Arriving in Finland.

The Reichel Pugh-designed Nilaya has been prominent on the race courses of the world (see pages 4/5) but to keep her on the pace as she travels tens of thousands of miles to take part in regattas and enjoy family cruising, an on-going programme of support and improvement using Baltic's increasingly popular Lifecycle Service has been essential.

Baltic's Service Foreman Fredrik Hjulfors said that in 2013 Nilaya was in Palma, Mallorca to fit two new Northern Lights generators to improve hydraulic and power management. At the same time a tiered twin berth cabin was converted into a double and, when a hydraulic boom vang failed causing damage to the coachroof and saloon, Lifecycle were quickly despatched to the Caribbean to carry out the repair work. Nylaia was also recently fitted with a prototype Maxwell capstan which can be retracted into the foredeck.

Matthew Lester, who has been with Baltic for four years, is our Lifecycle Service Manager and through his wide experience with Baltic-built yachts like Pink Gin, Gof and Canova, has built up a detailed insight into what yachts and skippers need. He said that increasing demands in Palma have led to the appointment of British former skipper Jim Wadham as Operations Manager and he has been joined by Aila Bell to run the administration. In addition, two Jakobstad-based boat builders and one Baltic service foreman have been selected to spend a year in Palma to further strengthen the workforce. Our Palma based Lifecycle Service Centre is located in the STP complex in Palma, Mallorca.

Palma team under Pink Gin:
Johannes, Martin, Jim, Aila and Fredrik

TECHNICAL

Nilaya dimensions

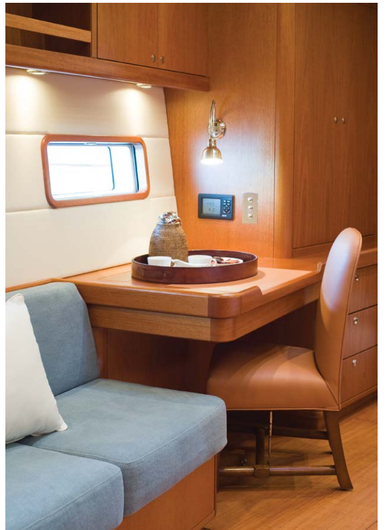
LOA	34.14 m
DWL	30.75 m
BEAM	7.52 m
DRAFT	3.5/5.5 m
LIGHT DISPLACEMENT	87 tons
BALLAST	34 tons

List of boats at LCS serviced boats in Palma include:

- Hoppetosse
- Black Pearl
- Inukshuk
- Pink Gin
- WinWin
- Castigo
- Bionic Elk
- Alix
- Cavallo
- Ptarmigan
- Cuba Libre
- Visione

While in many ways Baltic like to welcome yachts in Finland, especially for major refit works, the restrictions posed by winter icing and the convenience of working in Palma with its proliferation of yachting related companies means that establishing an official Baltic Yachts service centre able to deal with any yacht, was essential.

Matthew Lester said that apart from Nilaya's various visits to Palma work has been carried out on a Swan 100 following a lightning strike, a new rudder was fitted to Visione in 2014, WinWin had been in for post race repairs, and a number of other Swans have been worked on. Lifecycle Service welcomes any size of yacht. We've recently completed work on Baltics ranging from 35ft to152ft including a Baltic 56 in for preparatory work prior to this last year's Atlantic Rally for Cruisers (ARC).



> "...As she travels tens of thousands of miles to take part in regattas and enjoy family cruising, an on-going programme of support has been essential..."

A recent customer for the Lifecycle Service was the Wally 105 ketch Nariida, a modern classic, which was originally launched in 1994. She has been worked hard on the race course and over thousands of miles of cruising and left Baltic looking brand new.

In a way she typifies a growing need for top quality service and support in the ageing super sailing yacht fleet. Baltic's Lifecycle Service not only provides that support but is capable of carrying out almost any modification or repair to the highest standard on any size of yacht..

TECHNICAL

Dimensions

LOA	24.70 m
LWL	20.80 m
BEAM	6.10 m
DRAFT	0.95 m
LIGHT DISPLACEMENT	53,500 kg

- **Builder:**
  Spertino Alalunga s.r.l.
- **Delivery year:**
  1989
- **Owner's representative:**
  Justin Grubb
- **Project Manager at Baltic:**
  Patric Brännbacka

Powerful SUNNY DAY

Unique wooden powerboat restoration

This classic motor yacht is heading for the Olympics in Brazil in 2016 and is about to have two new MTU diesels installed.

This classic family motor yacht, built in 1989 by the Italian yard Spertino Alalunga s.r.l., is undergoing a major re-fit at Baltic's Bosund yard and is about to have twin V10 MTU diesel engines installed. They will develop a combined 3,200hp which should give her a desired top speed of 31 knots. This performance should be helped by the fact that the hull, built originally of marine plywood over solid mahogany frames, was lengthened in the stern by almost 10ft (3m) before she reached Baltic.

Sunny Day has remained in the same family all her life. Her entire interior has been removed and will be refurbished before re-installation in time for a Spring 2016 re-launch. In addition to the owner Sunny Day can sleep six guests and there is accommodation for two crew. The owner's accommodation will be re-arranged and Baltic Yachts will use their expertise in sound deadening to keep the yacht as quiet as possible something to which timber construction lends itself.

The intention is for the yacht to attend the Olympics in Brazil before eventually returning to the Mediterranean via Cuba where she will be used for family cruising on the Cote d'Azur.

SPIRIT OF AILSA

Rejuvenated

When this Baltic 35's owner decided on a major re-fit he was keen that Baltic did the work. Following the yacht's re-launch he updates us on a summer spent exploring some spectacular local cruising grounds.

"Some 20 years after delivery, Spirit of Ailsa was starting to look a bit shabby, prompting me to decide the time had come for a rejuvenation, preferably at the hands of the people who built her in the first place. A new teak deck and paint to the hull, cabin, mast and boom have transformed her appearance so that she looks new again.

"This has been complemented by new sails, electronics and upholstery, and all moving parts have been serviced or replaced. She has already attracted a lot of favourable comment from other sailors, some of whom have been keen to come and talk about the boat. In many cases they seemed very knowledgeable about Baltic Yachts.

"In spite of the untypically cold and damp weather this summer, Spirit of Ailsa has had an excellent first season, crossing from Jakobstad to Sweden's High Coast and then down to the Stockholm Archipelago via the Åland Islands. Having sailed these waters in the past, but on a mission to deliver the boat much further south, I was keen to take it gently this time, taking full advantage of the breathtaking scenery, picturesque ports and unfailingly hospitable welcome.

> "...She has already attracted a lot of favourable comment from other sailors..."

"Highlights included Ulvöhamn, the port between two islands on the High Coast, sailing up the winding channel to Hudiksvall in a combination of dawn and moonlight at 2 o'clock in the morning, Oregrund, Mariehamn, Wasahamnen in the centre of Stockholm and the adjacent Wasa museum. The island of Fejan with its small fish restaurant, the saunas at Grinda and the beautiful and sheltered anchorage at Säck, were among many memorable highlights.

Next season's plans include continuing to explore the Stockholm Archipelago, Åland and the Turku Archipelago.

TECHNICAL

Dimensions

LOA	10.64 m
LWL	8.75 m
BEAM	3.50 m
DRAFT	1.85 m
LIGHT DISPLACEMENT	4,480 kg
BALLAST	1,880 kg

- **Naval Architect:**
  judel/vrolijk & co
- **Delivery year:**
  1984
- **Units built:**
  45
- **Project team at Baltic Yachts:**
  Jan-Erik Krokvik, Foreman
  Kirsi Palomäki, Lifecycle service coordinator

BALTIC 64

Custom

Day sailers don't come much bigger or more sophisticated than this Reichel Pugh-designed performance sloop, which is due to start building at Baltic Yachts shortly.

Commissioned by a repeat client this slippery fixed keel yacht will be designed and equipped for sailing in the USA where she will operate out of her home port on the west coast of USA. The brief was for a fast, lightweight sloop with comfortable week end accommodation and the ability to be handled with ease by just a helmsman and a single, experienced crew.

Her hull and deck will be constructed using carbon pre-preg materials over Nomex and Kevlar honeycomb cores with Corecell foam in slamming areas forward. This is a stiff, lightweight system that we at Baltic Yachts are constantly refining with precisely monitored weight control and distribution. Baltic's project engineer Jonas Krokvik said he and the design team expect this super-daysailer to tip the scales at just 16.4 tons all up in light vessel mode, eight tons of which will be contained in the torpedo-style bulb suspended from a stainless steel fixed fin providing almost 12ft 6in (3.8m) draught.

The 64-footer's two-person crew can expect an exhilarating ride judging by the yacht's rig proportions, a square-top main option and an asymmetric set off a fixed bowsprit, the assembly for which can be removed when required. The one-person crew can use a powered winch for the A sail hoist but unfurling is manual on a line driver. Jib trim uses powered winches and the single line mainsheet will be set on a Harken captive winch with a line speed of up to 1 metre per second. The Reichel Pugh design shows the yacht's maximum beam of around 17ft 5in (5.22m) carried well aft to provide great off-wind stability.

A 64ft performance day sailer for two

Like all yachts built at Baltic, we are working hard to reduce noise levels to a minimum with special attention being paid to keeping the decibel level low in the owner's cabin and cockpit when deploying and lying at anchor.

There's also a lot of thought being put into the power generation and propulsion system. At the time this newsletter went to press Jonas Krokvik explained that the choice between a hybrid electric system and a more conventional diesel powertrain had yet to be made. Here at Baltic, research into improving and refining the innovative RPS (Retractable Propulsion System – see page 20) is making significant progress although this yacht will be fitted with the well-tried version already seen aboard Visione and WinWin. The entire propeller assembly retracts into a bay in the hull with aperture closures leaving the underwater surface perfectly smooth and completely free of drag. Water left in the propeller stowage housing is expelled pneumatically thus reducing unwanted weight.

Scheduled to launch in 2016 this will be a day sailer with a difference, performance to spare and an unmatched build quality.

TECHNICAL

Dimensions

LOA	19.51 m
LWL	18.66 m
BEAM	5.22 m
DRAFT	3.80 m
LIGHT DISPLACEMENT	16,400 kg
BALLAST	7,900 kg

Sail Plan:

I	27.785 m
J	7.400 m
P	27.250 m
E	9.400 m
BAS	2.200 m
STL	10.650 m
RM20/RM max	10,650 m

- **Naval Architect:** Reichel Pugh Yacht Design
- **Interior Concept and Styling:** Baltic Yachts
- **Project team at Baltic:** Project manager: Mathias Flink Project engineer: Jonas Krokvik
- **Project Management:** Garth Brewer

INTERVIEW

Professor Näder taking Baltic into Hi-Tech future

The man behind Baltic Yachts' new era explains the double role he now plays for the company.

Professor Hans Georg Näder, who heads the successful medical technology and prosthetics company Ottobock in Germany, makes regular visits to Finland as a long-standing client of Baltic Yachts. His new 175ft (53.9m) Pink Gin VI will be the largest carbon fibre sloop in the world when she is launched in 2017 and will be the sixth Baltic he has commissioned.

But when he became the majority shareholder of the company in 2013, his visits took on a new significance and since then he has been keen to emphasise that keeping the two roles distinct from one another is key to succeeding in both.

"For 20 years I have been a loyal customer and become a good friend of this unique yard," said Professor Näder. "When Baltic Yachts needed support I was immediately prepared to discuss the challenges and offer help. The call from Per-Göran 'PG' Johansson, one of Baltic's founders and now a senior advisor, came in the middle of the night whilst I was in Uruguay and that's how the partnership started!"

Professor Näder recognises that Baltic Yachts and Ottobock have common values, "A passion for quality; employing the right people in the right place at the right time and the fact that both companies use ground breaking, leading edge technology in their respective fields."

Professor Näder's 80 per cent share holding in the company reflects his confidence in Baltic's future and an expectation that turnover will almost double to Euros 60 million by 2020. He says that this will be partly based on increased component production in carbon fibre using some of Ottobock's technological skill, on-going innovation and a "whole new arm of carbon technology". Considerable research and development is shared between the companies and Professor Näder is keen to see this grow.

What, in Professor Näder's view, has led to Baltic Yachts' success to date? He identified three reasons. "The courage to move to carbon fibre structures when glassfibre was still the industry standard in boat building; the strong re-sale value of a Baltic yacht due to its high build quality and the tendency for it to be well maintained; and, crucially, the investment made in the local community by encouraging youth to adopt and value the unique skills and heritage of Baltic Yachts." Professor Näder is impressed by the Finns and the people of Jakobstad. "They are highly qualified, honest and modest," he said.

He predicts that Baltic superyacht production will always remain in Ostrobotnia. "There's a unique local culture in boat building supporting two world class builders, Baltic and Nautor who, despite living virtually next door to each other, exist in great harmony," said Professor Näder. Nautor's long history of boat building, which stretches back to 1966, has benefitted both Baltic, established in 1973, and the entire region. "Together the two yards create a significant local industry in which both can co-exist successfully in friendly competition and benefit from shared training schemes and supplier networks," said Professor Näder. "It's not unlike Audi, BMW and Daimler in the German car industry where everyone benefits."

Professor Näder's own relationship with sailing is nurtured by the freedom and relaxation it offers. As a youngster he learned to race in Optimists, graduating to 505s but now he enjoys a more leisurely pace in yachts designed to take him to the world's most appealing cruising grounds.

His association with Baltic began with a chance meeting and, as he explains, "a long lunch with PG Johansson and designer Rolf Vrolijk in Sardinia which led to a contract to build the first Pink Gin, a 97-footer delivered in 1999." Since then he has cruised extensively naming his favourite sailing haunts as St Tropez, Santa Margherita, near Genoa, Sardinia and New Zealand. But it is the Mediterranean for which he holds most affection and he is looking forward to the next Baltic Yachts Rendezvous scheduled to take place in Porto Rotondo, Sardinia. "It's a great opportunity to meet other Baltic owners and spend some relaxed time together," said Professor Näder, who regards the regatta as a "key account event".

Finally, what it is that has persuaded Professor Näder to return to Baltic on no fewer than six occasions to commission a new yacht? "It's the passion, the quality, reliability and the wonderful customer service which combine to create a unique and lasting customer relationship with Baltic Yachts," he said. "I didn't really need a new yacht," he confessed, "but the combination of improved performance, leading edge design and the award winning potential of the new project was very hard to resist!" On top of that he re-affirmed his passion for Baltic both as a yacht owner and an entrepreneur. And in response to being asked, "what does Baltic Yachts mean to you?" he replied simply, "It is a good yard."

Tommy Johansson

Production

Streamlining a complex process

Baltic Yachts has set a new standard in efficient and tidy manufacturing but is always looking at ways to further improve.

Production techniques in boat building have changed dramatically in the last ten years, no more so than in superyacht manufacturing. At Baltic Yachts we have embraced modern practises affecting everything from workplace cleanliness and standardising tools to completely changing the way we build yachts and manage workflow.

Tommy Johansson is Baltic's Production Manager. He's been with the company since 1989 and, importantly, has worked in many departments. He recognises that although management systems and mantras are useful it is the workforce and individuals who matter most. Communication throughout the Baltic 'family' is crucial.

An interesting observation by specialist superyacht project manager Nigel Ingram, who is a regular visitor to Baltic Yachts, highlighted the advantages of building almost everything under one roof, including the complex interiors of yachts. "Because departments communicate with each other and work together members of the workforce often identify opportunities to improve design, lay-out or the way we do things, that we might otherwise miss. This doesn't happen in every yard," said Nigel.

Tommy Johansson outlined three key areas of production management: planning over long periods and managing workflow within that plan; improving shop floor practise like tool management and cleanliness and developing new ways of building boats including making hull access easier and speeding up equipment installation and fit-out.

> "...The need for good day to day organisation is paramount and much has been done to rationalise tools, equipment and storage..."

WHEN CAN WE START?

Using special management computer programs Tommy can tell the sales force as far ahead as 2021 exactly when a new project can start and how long it will take to complete. The program also helps cope with the inevitable peaks and troughs associated with the selling and building cycles. All skills are factored in including electricians and lighting engineers, plumbers, interior joinery, laminators, painters, surface treatment and many others. Having all skills under one roof certainly makes this easier to control.

Sales Director Kenneth Nyfelt, said that if the computer says 'no' to a request to start a yacht it needn't be taken literally, but on the other hand the temptation to oversell should be resisted. "It's a fine balance," he said. Tommy Johansson said: "We (production) never promise Kenneth anything that we can not deliver."

A PLACE FOR EVERYTHING

With more than 230 people working in Baltic's Jakobstad and Bosund centres the need for good day to day organisation is paramount and much has been done to rationalise tools, equipment and storage. A management plan known as 5S was introduced to streamline and clean up the shop floor. 5S originated in Japan and stands for: Sort (throw away what you don't need); systematic arrangement (a place for everything, everything in its place); shine (keep it clean); standardise (the company provides all tools); sustain (Birgitte Holmblad's job at Baltic Yachts is to make sure these practises are constantly maintained). All tools, for instance, are stored on marked boards, some static, others mobile so that they can be moved to and even into a yacht. Work teams must return all tools before they are allowed to finish their shift. Very few tools now go missing!

ADVANTAGES OF SPLIT MOULDS

Finding ways to build yachts faster and more efficiently is a constant challenge but one big breakthrough at Baltic was the use of split moulds – i.e. the hull being built in two or sometimes three longitudinal sections - which allows easy access to the hull shell from the factory floor. More recently, a key improvement to production was the decision to incorporate the side deck moulding with each half of the hull.

The main advantage is the ability to install trunking, piping runs and wiring trays, many of which pass through the boat at this level, as soon as the laminated hull is complete. Previously, installation would have to wait until the separate deck mould was in place. Now specialist departments can start work as soon as the hull moulding is ready. Some deck fittings can also be installed at an earlier stage. This has implications further back in the engineering drawing department, for instance, which can begin design at a much earlier stage.

In addition, cabin modules, having been designed, modified and completed outside the yacht, can be installed before the two halves of the hull are joined. Again, the advantages of easier access enable more accuracy and greater speed and importantly for interiors there's far less chance of damage to some of the delicate finishes.

Yet another advantage is eliminating the need for a complete deck moulding which takes up valuable factory space. Instead the only other major mouldings are for the main superstructure and cockpit.

Today, Baltic Yachts enjoys a more streamlined, cleaner and more efficient production process but through our workforce we are constantly considering new ideas and improvements.

Technical

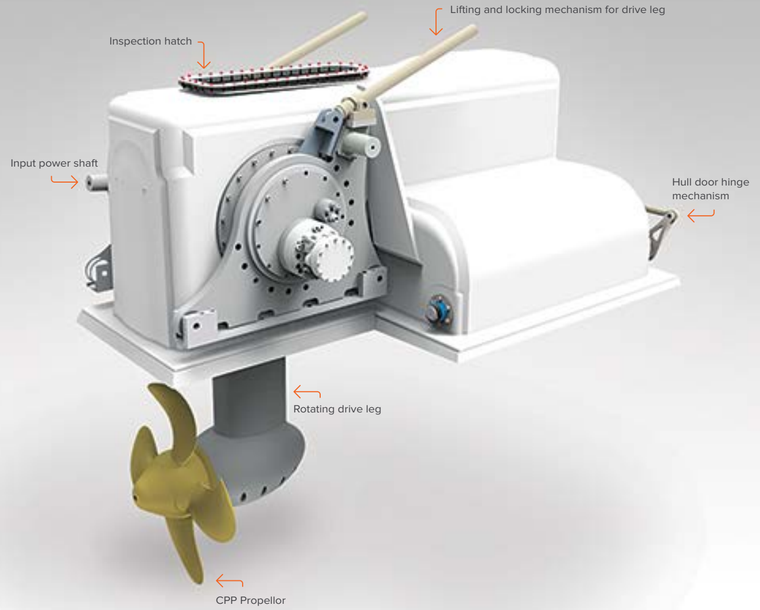
Now you see it, now you don't

Like weight, drag is the enemy of boatspeed so being able to retract your prop is a real bonus. Now Baltic have come up with an ingenious development of the idea which turns the prop into a stern thruster.

Baltic Yachts invest a lot of time and effort into making hull structures light and stiff but equally important is the research we carry out into features like drive trains and steering systems which make yachts faster and easier to sail.

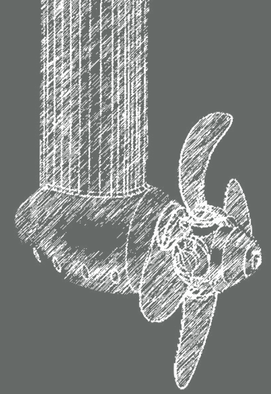
Head of R&D at Baltic is Roland Kasslin who has been with the company since 1978, almost from its founding. Among the complex challenges he has met include the dagger-boards and canting keel system for Lupa of London, Visione's underwater Drop Anchor System (now using a 140kg CQR anchor incidentally), the rudder lifting system aboard Hetairos and any number of large lifting keels.

More recently he helped mastermind the Retractable Propulsion System (RPS) which was first fitted to Visione in the winter of 2011/12. Baltic worked in conjunction with Dutch company Ship Motion to engineer a means of lifting the propeller, shaft and P bracket assembly into a recess in the hull and then closing it with sliding hatches or a shell sea door to leave a perfectly smooth underwater surface.



This has been fitted successfully to a number of yachts but now Baltic have taken the idea further and developed their own RPS using a pull propeller (as on an aircraft) mounted on the forward face of a drive leg which hinges down from a housing in the hull. They are working closely with composite engineers Gurit to design the carbonfibre housing and Hundested for the gearing in the drivetrain.

The big difference between this system and the original is that once in the down position the entire leg and controllable pitch propeller (CPP) can be rotated through 90 degrees so that it can work as a stern thruster. It takes six seconds to rotate fully and the retraction process takes about 30 seconds. With the CPP this provides the helmsman with a remarkably versatile manoeuvring tool.



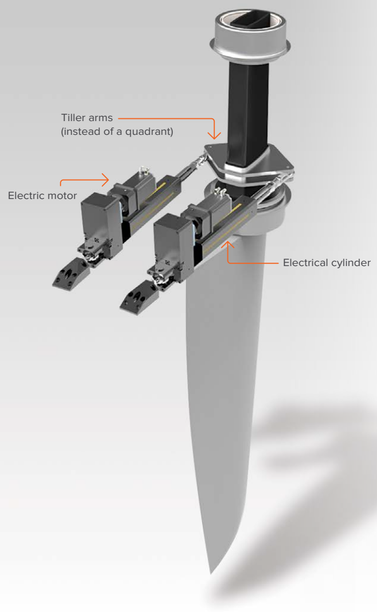
> "...The big difference between this system and the original is that once in the down position the entire leg and controllable pitch propeller (CPP) can be rotated through 90 degrees..."

Once the propeller has been retracted hatch covers are hydraulically deployed to seal the aperture and a pneumatic process is used to expel water from the housing ensuring that the yacht isn't carrying around unwanted weight. A series of sensors will be built into the unit to warn of any leaking or alignment problems and there's an inspection hatch inside the boat on top of the unit so that the mechanism can be viewed easily.

The advantages include increased boat speed of more than 0.2 knot, which in any yacht race is extremely valuable, and the ability to manoeuvre with more agility on the start line, at mark roundings and in close quarters action through considerably improved acceleration. There's certainly a rating penalty but to date it seems the advantages of the RPS outweigh any rating handicap.

Other advantages of the improved system include reduced vibration, keeping dry many of the moving parts, so avoiding fouling which in earlier models could compromise operation of the aperture hatches, and the ability to deploy the propeller at boat speeds of up to 12 knots.

The first unit is due to be fitted to the Baltic 130 (see page 06).



What's in @Baltic

Bring back that steering feeling

Powered steering on large yachts is notorious for removing 'feel' from the helm but automotive technology now being used by Baltic should change all that.

Baltic Yachts has turned to the car industry in an attempt to bring back 'feel' to the helm of large yachts. Because of enormous rudder loads, powered steering systems, normally driven by hydraulics, provide helmsmen with additional brute force, but they are rarely able to transfer subtle pressure differences and rudder movement back to the steering wheel.

Baltic's R&D chief Roland Kasslin has been working closely with Swiss automotive engineer Peter Kägi to find a solution. Kägi first worked with the company to design and build a small amphibious car which doubled as a tender for the Baltic Yachts 152-footer Pink Gin V.

Now he and Roland Kasslin are working on a steering system employing twin electrically-powered cylinder motors to move the rudder via tiller arms. The innovative component is what Roland describes as a force feedback motor positioned at the wheel so that it mimics rudder loads caused by wave action, any amount of weather helm and other factors. Speed and sensitivity are the keys to its effectiveness.

The technology is derived from methods used in a car's power steering equipment which gives the driver a feel for the car and the road but does not burden him with the real load of turning the wheels.

An appealing feature is that the helmsperson can choose how much feedback he or she wants to suit their physical ability and there are three modes for heavy weather, normal sailing conditions and harbour use.

As the main components have been in use for some time in the automotive industry most of the development work and

> "...An appealing feature is that the helmsperson can choose how much feedback he or she wants to suit their physical ability..."

the need for reliability is in place but Roland Kasslin said that getting the software properly adjusted will be the biggest challenge. Germanischer Lloyd approval is in place although the classification organisation insists that yachts must carry an emergency battery pack to power the system in the event of an electrical failure onboard.

Tests on the first unit will take place this autumn.

NEWS

Highlights

MONACO YACHT SHOW 2015

Baltic Yachts will be present at the Monaco Yacht Show which runs from 23-26 September. This year we are showing the Baltic 116 Doryan, the stunning red-hulled yacht delivered in January. You will find our stand at Quai de l'Hirondelle.

LIGHTER STIFFER FASTER – TOGETHER

We have renewed our slogan. The new slogan remains true to the company's heritage and reflects well Baltics' values. The day before this year's summer holidays, all employees at Baltic were welcomed to work with new jackets featuring the slogan. Banners proclaiming "Lighter, stiffer, faster – together" had been hung throughout the yard.

BIONIK ELK FOR SALE

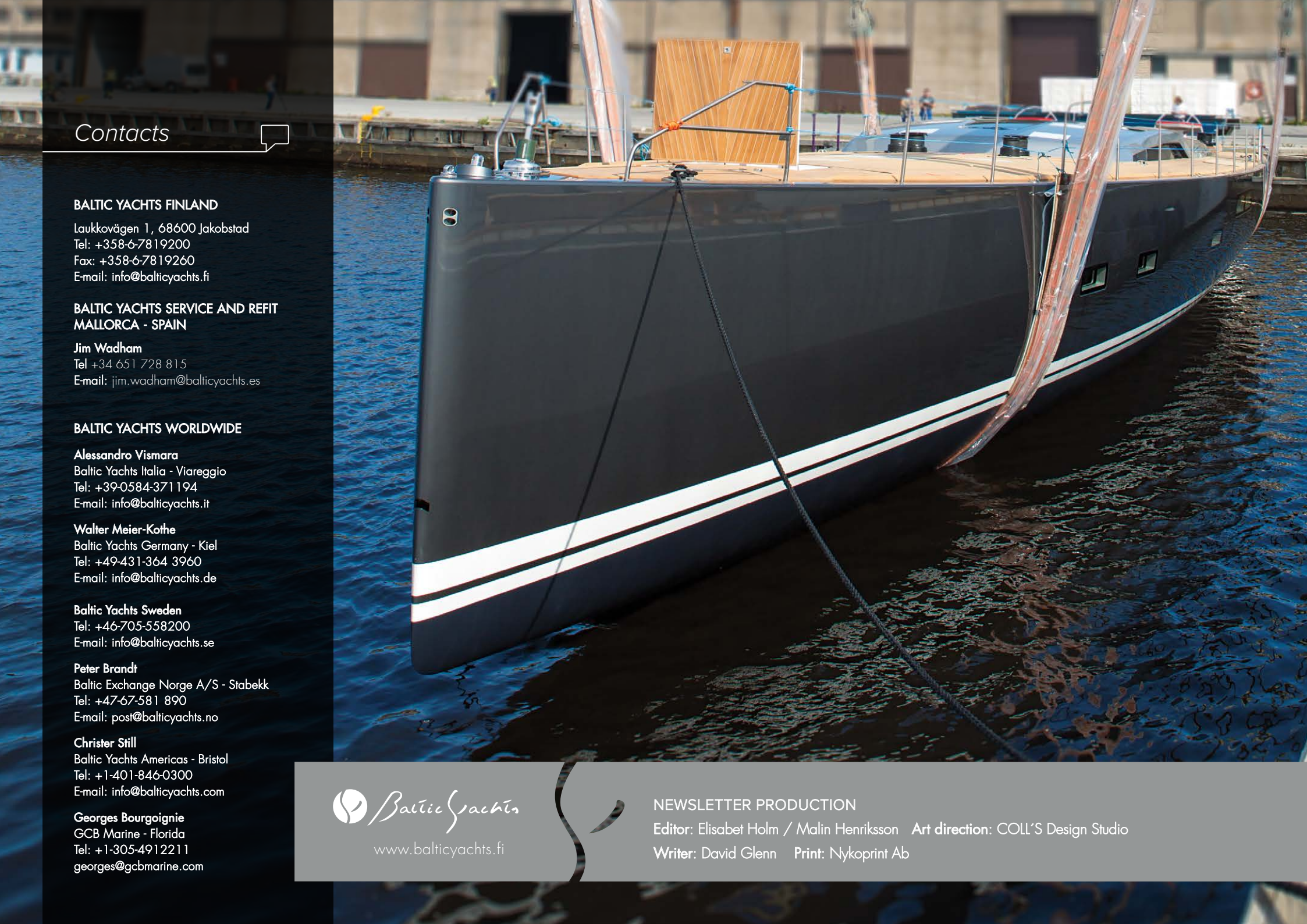
The canting keeled Baltic 56-01 Bionik Elk is now for sale. The judel/vrolijk designed yacht was delivered in 2005 as the first of six yachts in this semi-custom line. Deck and interior were custom built and her construction was technologically advanced. She is now lying in Palma. For further information contact Henry Hawkins: henry.hawkins@balticyachts.fi.

DÜSSELDORF BOAT SHOW

Come and visit us at the world's biggest boat show. Baltic Yachts will be present at boot Düsseldorf 2016. The show dates are 23-31 January, 2016.

MORE AWARDS SUCCESS

In May at the World Superyacht Awards in Amsterdam, the Baltic 108 WinWin won both its class, sailing yachts below 40m, and best sailing yacht overall. It is the second year in succession that a Baltic built yacht has won both these prestigious awards. WinWin is also nominated in the International Superyacht Society Yacht Awards.



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