

Over the last two decades, Estonian shipyard Baltic Workboats has continued to reaffirm qualities associated with many businesses originating from this modest sized country that hugs the Baltic Sea. Technologically savvy, forward-thinking and committed to high quality vessels were just three of the traits that Inside Marine's Daniel Barnes and Robert Stacey experienced when they visited Baltic Workboats on the island of Saaremaa. Daniel Barnes reports.

# ESTONIAN WORKBOATS

*Piercing through Waves  
and International Markets*









*Inside Marine's Rob Stacey (left) and Daniel Barnes (right) testing out the wave piercing hull design*



Central European, Scandinavian, Mediterranean; many European countries are easily grouped, allowing the odd generalisation (be it cultural, architectural or lifestyle assumptions) to, more often than not, prove to be accurate.

But whilst Estonia is officially part of the Eastern Bloc, it doesn't seem to share the same characteristics as many of its Central and Eastern European neighbours who were once part of the USSR.

Perhaps that has something to do with the sheer amount of green that can be seen looking down at Estonia from a plane's eye view – approximately 60 per cent of the country is covered in forests – or it may be the fact that during Inside Marine's visit to Baltic Workboats, the only part of Tallinn we were able to witness first-hand was the inside of the airport on the outskirts of Estonia's capital, before travelling west to catch a ferry to the picturesque island of Saaremaa – a popular tourist destination for natives and internationals alike.

For it is here, on the south coast of the largest of Estonia's 2,000-plus islands that Baltic Workboats continues to not just grow its yard and employee numbers, but also

a noteworthy reputation as a modern shipyard capable of designing, building and delivering high quality and versatile vessels that are operating in waters across Europe and beyond.

"Quality, design and the personnel are the key factors for Baltic Workboats mission," said Joel Rang, Baltic Workboat's Sales and Marketing Manager. "It has to be perfect and there is no other way to build boats. Sure, we have similar issues as other producers but we are more mobile to adopt quick changes."

### 1998 Origins

Baltic Workboats began newbuild programmes two years after its 1998 acquisition, once the yard and its equipment had undergone a rigorous modernisation makeover.

And the facilities have been constantly upgraded ever since; attention has been placed on developing production standards and management systems, with Baltic Workboats working to both ISO 9001 and ISO 14001 standards, whilst outside, two wind turbines produce more than enough electricity to power the yard, with solar panels adorning the office roofs taking care of hot water and heating. Furthermore, additional

site space is currently being reclaimed from the Baltic Sea for when demand outstrips the shipyard's current workload capacity.

"At the moment, we have about 5,500sqm of under roof production area and we are planning long term to increase this to 8,500sqm," said Joel.

But under this Estonian shipyard's current capacity, which sees annual turnover between €25-€30million and employee numbers fluctuating around the 200 mark, in 16 years 165 boats have already been built here, ranging from patrol and SAR boats, to pilot boats, workboats, ferries, tugs and catamarans.

### Newbuilds up to 45m

As the shipyard's workspace has increased, so too has the length of boats leaving the workshops and quayside. Baltic Workboat's inaugural contract was the 14m Watercat Pilot 140 aluminium pilot boat for the Estonian Pilot organisation. Recent contracts have included 26.5m patrol vessels for the Swedish Coast Guard, a 26m oceanographic research vessel for Stockholm University, and three 45m ice breaking ferries for service around its homeland. ▽







From left to right: Neeme Muru, Daniel Barnes, Joel Rang

The third and final ferry in that series was resting calmly on the water during Inside Marine's visit in October. The engine room all but signed off, the ship was mainly boarded by electricians carrying out works in the wheelhouse and the public areas, whilst a handful of painters were administering another coat on the car deck.

Whilst being shown around the ferry by Baltic Workboat's Neeme Muru, a man who has spent the best part of his career at the company from project and yard manager to now working in sales, he suggested I take a look up. The ceiling partitions not yet installed, I was looking at steelwork, pipes and cable trays. In these cable trays were immaculately arranged, colour coded cables running in perfect straight lines.

"You won't find any vessel that leaves our yard with imperfections - such as messy or tangled cables in the trays - even aspects that will be hidden out of sight," smiled Neeme. "It may take a little longer, but the devil is in the detail."

This level of detail is also evident from an aesthetical point of view, as can be seen by the patterns emblazoned on the sides of these three ferries.

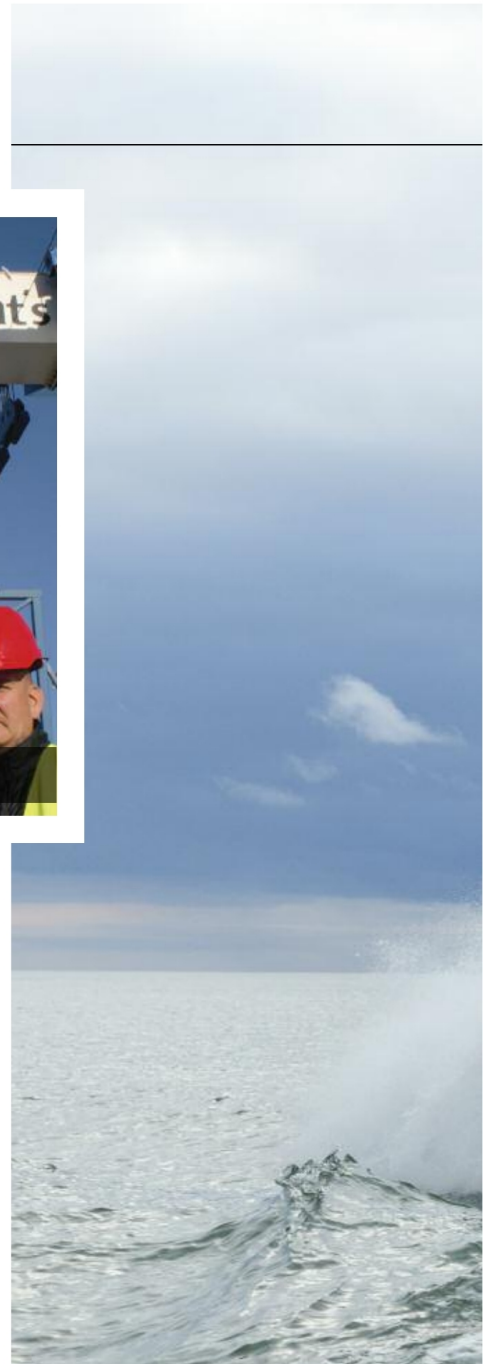
"All the three ferries are for different counties of Estonia," said Neeme. "The three boats have different patterns that represent the local heritage, or folk law, that can still be seen today in our traditional clothes."

The shipyard can also carry out work on vessels up to 100m in length along its quayside. Outfitting on a ferry of that very length for the Swedish Transport Administration is underway during the winter months, with the hull arriving from the company's Latvian steelworks subsidiary. Work needs to be scheduled around the winter months because when winter hits in this part of the world, it really hits.

"If the winter is cold enough to freeze the sea, the ice usually comes somewhere in mid-January and stays that way until March," said Neeme. "Whilst last year the sea didn't freeze, a few years ago it was so cold that the ice arrived in mid-December and didn't leave until April. That year, we had about 15 patrol boats standing in our shed. I think we had more patrol boats at that time than the entire Estonian Navy!"

Neeme explained that operations have to be particularly mindful of the winter if aluminium boats are planned for delivery. But with many of the orders coming in for steel hulled vessels - and a number of them with icebreaking capabilities - the issue of ice is somewhat negated. And whatever the weather, Neeme stressed Baltic Workboats is a year-round operation.

Ultimately, designing and building boats that appropriately deal with the challenging conditions in which they are to be working in, is a key characteristic of all Baltic Workboats' vessels. Be it carving





Baltic Workboats' 15m  
pilot vessel 1500WP



through ice or piercing through waves, Joel and Neeme were in absolute agreement of the quality of the shipyard's vessels and the positive impact they have, not just on the crews sailing them, but on the bottom lines on the accounts of the authorities owning them too.

### Wave Piercing Pioneers

One of the company's proudest accolades has been the success it has enjoyed with a revolutionary wave piercing hull concept.

In August 2016, Baltic Workboats delivered its first patrol vessel with an advanced new wave-piercing design, to carry out customs and multi-functional responsibilities.

Zeeleeuw (Sea lion) is a 22m wave-piercing aluminium vessel with a unique hull design that enables the boat to travel at high speed through challenging sea conditions.

This new Patrol 2200 WP type of vessel can be tailored to the unique requirements of customers around the world. Powered by twin Volvo Penta D16MH marine diesel engines, each generating 405 kW at 1800 rpm to rotate 5-blade fixed-pitch propellers through ZF 665V marine gearboxes, the vessel has a maximum speed of 22 knots according to the customer's requirements. The vessel is highly fuel-efficient and consumes only 133 litres per hour at a standard patrol speed of 20 knots.

Speaking of the design ideas behind the wave piercing concept, Neeme said: "In 2011, we started working on the idea of focussing very much on low fuel consumption and low accelerations in high seas, and by 2012 we already had conducted our first model tests. That same year we also first sold this type of vessel."





The 60m towing tank inside the Small Craft Competence Centre (SCC) in Kuressaare

- a series of three pilot boats, for the same client.

"We then managed to sell this concept for Estonian pilot boats and the other customer followed up his first order with a tender for a 22m boat. We managed to make a 22m vessel, extended the boat to 24m, and now we have designed a 45m wave piercing concept that shares the

same positive capabilities as the smaller vessels we have delivered."

Complementing activity at the Saaremaa shipyard is a design and development office in Tallinn, ensuring Baltic Workboats has a presence in the capital, which benefits potential customers short on the time it takes to travel to Saaremaa, and also helps widen the company's own recruitment pool.

"Our design team is expanding," said Neeme. "The aim is to increase it from 15 to 20 over time."

Initially, the challenge to convince people with the right attributes to relocate to Saaremaa can prove tricky, admitted Neeme. "Whether people are from Sweden, Finland, Tallinn or wherever, they think that Saaremaa is a very remote location and don't want to





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be here. But once they are here and they see the place, they don't want to go away! It's a nice place."

## Model Testing at SCC

Not just a nice place, but a region that is actively encouraging and increasing its collective commitment to the boat building industry. For just a short drive from Baltic Workboat's location at Nasva harbour on the island's south coast, is the town of Kuressaare – the capital of Saare County and afforded the accolade of Estonia's westernmost town.

In the middle of this small town, just off one of its narrow and cobbled streets, is the Small Craft Competence Centre (SCC). The SCC is a research institution at the Kuressaare College – the smallest and remotest of the five colleges of Tallinn University of Technology.

With the help of EU funding, SCC was recently set up with the aim of developing professional know-how in Estonian small craft engineering, offering research and development services in the fields of boat design, model testing and material technologies. Housing a 60m towing tank with a wave generator capable of replicating all sea-going scenarios, the SCC is able to offer companies – like Baltic Workboats – model testing services that were previously only

available overseas. Only operational for the last 12 months, Baltic Workboats' 22m wave piercing patrol boat was one of SCC's inaugural references.

"About 80 per cent of Estonia's small and medium scale boat building is concentrated to Saaremaa," explained Jaanis Priede, SCC Knowledge Transfer Manager during our visit to the new facilities. "About ten years ago, the region made the decision to create a competence centre so we can offer services for companies and also support a marine engineering curriculum in this college."

After an initial period of calibration upon completion of the test centre, Jaanis hopes the recent tests for Baltic Workboats and a handful of other local boat building companies will open up the test facilities to the international marketplace; interest in the centre from Finland and Germany has already been registered.

"The message is simple," smiled Jaanis. "The world needs to know that Saaremaa now has the ability to offer all necessary towing tank services."

## A Community Shipyard

This strong community aspect encapsulating Baltic Workboats is an endearing quality to have witnessed first-hand.

And the positivity permeating from all corners of the company's workshops and offices would make many of Europe's bigger-named shipyards a tad envious. Perhaps this is a result of the somewhat less cut-throat business approach adopted by Baltic Workboats of supplying vessels for public sectors as opposed to chasing the commercial coin.

"We have delivered vessels so far to 15 countries and expect to add a couple more names to that list in the near future," said Joel. "Nearly all of the vessels are working for public or government bodies, but that said, the wind farm sector is an industry that could interest us because our vessels would be very suited."

Ultimately, whether the end user is an experienced pilot, a skipper of a SAR vessel or tasked with transferring a crew of engineers on a workboat, the desire to have a vessel that handles well, even in rough conditions and does so in an economical manner, will always be in demand. And whilst there are clients looking for these high-end qualities, shipyards such as Baltic Workboats, that can not only meet these requirements but go above and beyond, will always continue to thrive. ■