

GREG MORTIMER EMERGES FROM CHINA



Niels-Erik Lund, President and CEO of Miami-based SunStone Ships Inc., talked to CruiseBusiness.com Magazine's Susan Parker about building in China – its benefits, challenges and the learning curve experienced by both his company and the shipyard in overcoming language difficulties and other issues.

When SunStone decided to build a series of small exploration ships, beginning with the newly inaugurated Greg Mortimer, a Chinese shipyard was not the obvious choice, but – as it turns out – SunStone President and CEO Niels-Erik Lund is more than satisfied with the result. At the beginning, SunStone negotiated with conventional cruise newbuilding shipyards. “In my opinion Meyer Werft is number one for building cruise ships. That was our wish, but we ran into issues on financing in Germany and also on timing,” Lund commented.

This led the company into some hefty negotiations with a choice of shipyards in Norway (Ulstein), Spain and Croatia, all of which had little if any experience in the sector. Alongside these European yards were two in China including China Merchants Heavy Industries (Jiangsu). In the end, what it came down to was a choice of European shipyards with “very limited resources” in terms of people and those in China which, Lund explained, have “huge capacities in dry docks, steel production, people and equipment offering.” So Sunstone opted for China. “Our decision was that if there was a delay in building because of lack of experience, European yards would take a long time to catch up. We decided to go with China based on the main

reason of their capacities/resources, but also because we could have a contract there where we were very, very much in control of the building processes," Lund said.

In this respect, he explained that the Chinese builders accepted that SunStone had Ulstein doing all the basics such as tank tests and so forth, as well as being the equipment supplier. "Everything on our makers' list from engines to stabilizers to radars was European, from companies which had delivered to the cruise industry for 15 years." Everything was purchased by Ulstein, delivered to the yard, and then Ulstein supervised the technical installation on the ship. "This was very, very important to us. We wanted equipment onboard that can be serviced worldwide."

SunStone also negotiated with the shipyard that after Tillberg Design US had designed everything, Makinen would be the interior contractors responsible for all the interiors. "We ended up building a European ship assembled in China," Lund observed. In terms of the interiors, some panels for hallways and cabins were manufactured in China, as with cruise ships for other brands being built in European yards.

On-site supervision

What was obvious early on was that the SunStone supervision team would need to be larger in number than would be required for a yard with prior cruise ship building experience. For the Greg Mortimer there were 22 on site, which has now increased to 32 and will soon be 40. The Greg Mortimer is the first of seven ships scheduled to be delivered, although there are 10 signed for in the contract. Steelwork on the second – the Ocean Victory – is complete,

with delivery due this October. Work on the third ship has begun.

Lund said he is delighted that the first vessel was delivered on time and is "very, very pleased" with the result. The Greg Mortimer – at 7,400 gross tons – has a length overall of 104.4 meters, a moulded beam of 18.4 meters and a design draught of 5.3 meters. Classed by Bureau Veritas and registered in Nassau, the vessel is Ice Class 1A Polar Code 6 compliant. The maximum number of passengers and crew on board is 275 (80 passenger cabins and 58 crew).

Turning to the comparative cost of building in China, Lund estimated that the price was a minimum of 20% below the cost of building in a European yard. Not surprisingly, the costs of transporting all the equipment from Europe to China were much higher, but "the yard takes that into consideration, and that is their responsibility," he said. As far as SunStone is concerned, a higher cost was clearly incurred by the 40 people needed on site, which would have been "far fewer in Meyer Werft." However, he added, "Not only do we save on the building price, but we get the ship on time. The cost of delay for others [building in Europe] must be humungous and reputation-wise, it is not good." ▶



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Niels-Erik Lund (right) together with Margaret and Greg Mortimer onboard



In terms of timing, the production schedule was followed, but there were a few times when the yard had to redo things due to lack of experience. However, with the resources available they just put more people on. "They have the resources, and also they can work shifts. There were times when there were more than 300 people working on this small ship." In the past, the Chinese yard would have had about 20,000 employees; nowadays, it is nearer to 7,000 with much automation and all the latest welding and cutting machines in place. "It is getting very efficient and on a level with most European shipyards. They could build 25 of our ships in one dry dock," Lund noted. While there may be a lack of experience in some areas, in terms of steel production, he said, "There is no doubt that it is as good as in European yards."

Language the biggest challenge

When it comes to the challenges that were faced in building the Greg Mortimer in China, Lund said that language was the biggest issue. "There is a lot of translating, so it does take more time. It is more complicated, and there are misunderstandings." However, he added, "Some of our team are Chinese; they are experts in their field, and they know everything in English." Still, there were bumps in the road. "We and the shipyard have learnt that their supervision was not good enough. There were things that were not done right. The building needed a lot more supervision by the shipyard itself, and that has become much better at the end of the first ship."

Lund continued: "We had to guide them and write and document every article and check it all to see that it is done. They needed to check more that it was right. From a man-hour point of view, they have drastically reduced that for ship number two. Building is much more efficient, and I am sure it will be [even] more on ship number three. I am so pleased we are doing a series of ships. Unlike my colleagues, we can use experiences [on Greg Mortimer] on the next ships."

This inexperience had cost implications for China Merchant Heavy Industries, as well. "We have negotiated a fixed price so it will be better for the shipyard. I don't know what they [the shipyard] lost on the first ship. Hopefully, they will start making money on the third. From a cooperative point of view, there was never an issue. They always did it right. They corrected it. We will see a major efficiency from the shipyard. It is very keen, and that is the way it should be," Lund said.

From an environmental point of view, Lund said that SunStone has opted for "the best we can think of all the way round." First up is Ulstein's patented X-Bow, which is a first on a cruise ship, allowing for more gentle sea crossings, improved comfort and reduced emissions. Another example is that the ships are being built to burn only MGO (560m3 tank capacity) and are being fitted with Tier III engines (two Wartsila 6L26 at 1,200kW) for a maximum speed of 15.5 knots.

Also groundbreaking are the zero-speed stabilizers (Aquarius 100/8.1m2) from Rolls-Royce that have been installed, which work whether the ship is moving or not. Lund explained: "Even if sitting at anchor, they will work to keep the ship stable. In Antarctica and the Arctic, when getting in and out of zodiacs, it is not only better but safer."

Beyond Safe Return to Port

SunStone has gone beyond regulations in building this ship to Safe Return to Port (SRTP), despite this being a requirement for ships over 125 meters long (the Greg Mortimer measures 104.4 meters). "As we are operating where there are no other ports or ships, we need to introduce SRTP. Every system on board is separate; for example, there are two engines in each engine room. Tanks, pumps, etc., are completely separate – so if there is a fire in one, we have another. We have two complete bridges. One is on top of the ship in our observation lounge. All the equipment is there, although it is not a separate bridge as such."

The ship is equipped to sail for a maximum of 25 days, but from an emergency point of view it has fuel enough to last for 40 days in one stretch and water (160m3 freshwater tank capacity) is made onboard. The potential problem would be in



Tomas Tillberg team onboard Greg Mortimer. From left: Richard Louis-Jacques (husband of Nedgé Louis-Jacque), Nedgé Lois-Jacques (Partner and Vice President of Design), Diana Reyes (wife of Carlos Reyes), Margaret Mortimer (the wife of Greg Mortimer), Carlos Reyes (Managing Partner), Nadine Groning-Tillberg and Tomas Tillberg (Managing Partner)



food supplies. From a fuel point of view the ship can, for example, sail from Ushuaia to Spitsbergen without stopping and without passengers, but this is a choice for the charterer to make.

In the case of the Greg Mortimer, charterer Aurora Expeditions is selling repositioning cruises between north and south except for one leg from the Caribbean to Europe when she will sail without passengers. Being delivered early enabled a 7-day VIP cruise to be undertaken beginning on October 23 for 70 of those involved in building the ship, prior to the maiden voyage on October 31 with fare-paying passengers to Antarctica and back out of Ushuaia. When CBM spoke to Lund at the end of November, the Greg Mortimer was on its fifth cruise, and there had been no downtime. The first season is sold out and the second is almost sold out.

In terms of chartering, Aurora is responsible for everything onboard affecting the passenger experience, including hiring the expedition staff. From an operational point of view, SunStone is the provider in terms of deck and engine and the hotel side. With so many expedition ships on its orderbook, Lund agreed that crewing is another challenge. "It is becoming more difficult [to hire marine crew] and will become more so," he acknowledged. However, he said he believes that SunStone has an advantage from an officer crew point of view, as it has more ships than those companies with only a couple. "It is clearly a major benefit for our officers and crew that we are expanding the SunStone fleet, which gives good opportunities for promotions and getting onboard the new-buildings."





Elephant Island Bar

Interiors by Tillberg

The ship's interiors have been designed by the team at **Tomas Tillberg Design & Associates (TTDA)** which has been working with SunStone for almost two decades on refurbishment projects. "We know them; they know us and our type of product. They are the designers of the entire series," Lund said. CBM caught up with managing partner Tomas Tillberg in early December after he had returned from a trip aboard the Greg Mortimer. "Antarctica is absolutely amazing," he said. "It changes your life, actually." It is clear that cooperation between the two companies is good, and that each charterer has their own ideas about how they want the ship to look. At the same time, he noted, "there are certain basic configurations [in the GAs] that are the same."

After the interior design, it is the itinerary that is the next important consideration. Aurora Expeditions has been in the business for some time, focusing mainly on the polar regions. Hence, Tillberg explained, "It is very important that the whole focus of the design is to the outside: big windows, platforms to view from. Sometimes it is very cold, so you need to see from inside to outside." On the **Greg Mortimer**, TTDA has brought

some of the colors and atmosphere from the outside onto the ship. "It is light and fresh, not dark and moody. It is nice and comfortable."

The vessel's artwork was extremely important for the ship's namesake and founder of Aurora Expeditions, Greg Mortimer. As Tillberg explained, "Each piece is dedicated to an Australian explorer with information about them, but also pictures from different areas; for example, Antarctica and Greenland as well as wildlife. All the images [380 pieces] are created by Australian photographers. The first thing you see in a cabin over the headboard is a huge high-res image from up north or from Antarctica."

Talking of the cabins, Tillberg was keen to explain how much work went into designing the cabins to make them not only stunning, but comfortable and safe for a ship that can go into weather other ships might avoid. One example was to place grab rails in the bathroom by the toilet and shower, another was to avoid sharp corners on furniture and to ensure that balcony doors open and close properly. The ship's beds also required special attention. "Most beds today are either put together or moved apart. Because one is movable, it has to be fixed when it is [configured] together so it doesn't start moving," he observed. Furniture, too, needed to be secured for the same reason.

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The X-Bow also has beneficial implications for the interior spaces, Tillberg explained. “The GA is a little bit different to a ship with a typical bow. The front of the ship is different, so if you go down to the lower decks, there are cabins much further up front than on a normal ship. You have more space in the front for public areas, for example the main lounge is way up front with big windows and further up you come to the bridge. But also further on above is the observation lounge where you don't look over the bow but just over the water. For an expedition ship, it is absolutely perfect.” The X-Bow design even impacts the outside view, he noted. “You stand up there in the outside area in front of the observation lounge where there is a glass railing and just look right down into the ice.”

Tillberg and his team started designing for Greg Mortimer less than three years ago, which, he said, “was quite a rapid focus.” Building in China was a unique experience, he added. “There are always teething problems [in any yard]. It would be strange if not, but there was nothing that was not surmountable. We have done it.” In terms of sourcing, Tillberg has worked closely with Makinen in the past. “We have worked with them on many other projects, so between us we have a very, very good understanding on what works and what doesn't work and how we can achieve the best result. They, of course, tried to find things that they can source in China, but basically the original whole outfitting is done with European quality. When we pick materials and fabrics, tiles, etc., we are in cooperation with Makinen to make it easy for them to do.”

Why newbuildings?

SunStone, which up to this point had only purchased existing ships, made the decision to construct its own newbuildings because, in its opinion, there were no more secondhand ships of quality to be purchased – a situation that will only get worse,

according to Lund. “Quite a number of ships worldwide will have to be scrapped in the next four to five years, including some of our ships,” he observed. The company's philosophy is a little unusual in the cruise sector in that all its newbuildings were chartered out before the building contract was signed. As Lund explained, “We have signed for up to 10 ships. We cannot afford to take the risk of building without a charterer. I think we are the only company like that in the world.”

As to the future, Lund said he has no doubt that should SunStone decide to build another series of small ships, it would return to China. His advice to others thinking of following his lead is: “To have a large supervision team. Start by getting the right contract. Be in control as much as you can be in terms of the building processes – everything – so you can step in.” And most of all, he said, be conscious of “the language issue. ■

