Exclusive: SunStone Ships unveils energy efficiency of newbuilds

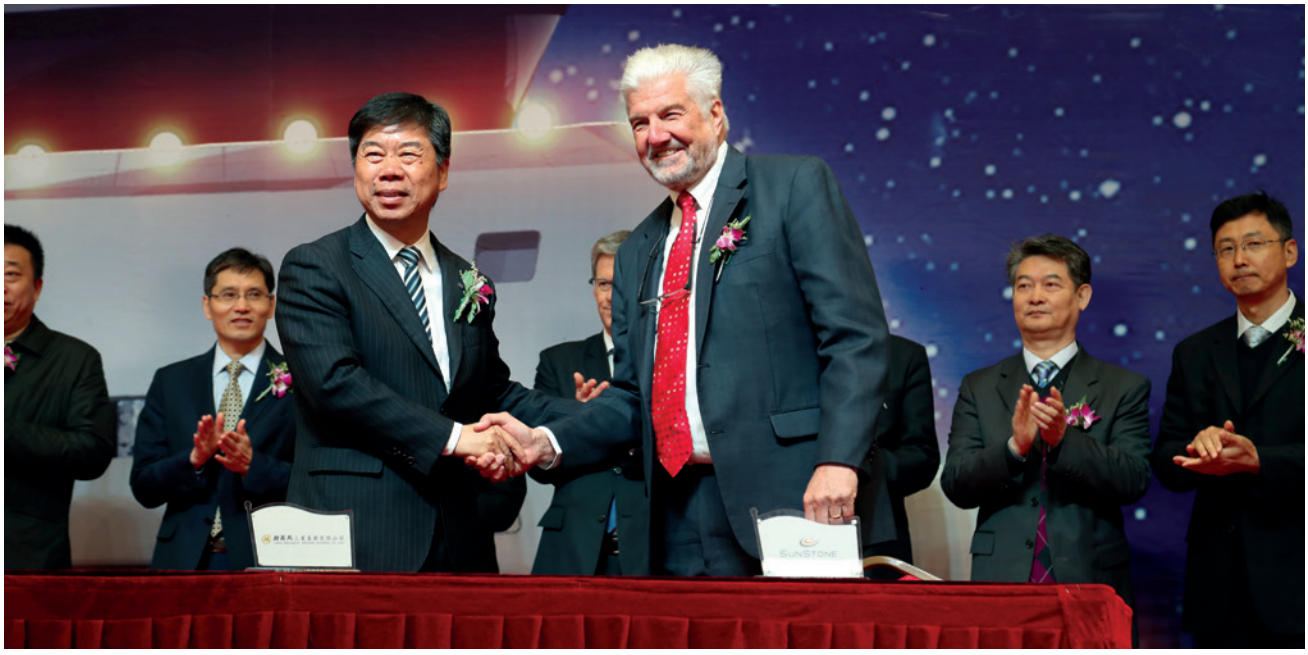
Energy efficiency and passenger comfort are top priorities for SunStone Ships' newbuilds – while it is also investing in its current fleet

SunStone Ships chief executive Niels-Erik Lund has unveiled the unique features of the company's new cruise ships and given his thoughts on using a Chinese shipyard to build them.

The company is one of the first cruise shipowners to use a Chinese shipyard to build its vessels – it has a contract for four vessels with options for an additional six with China Merchants Heavy Industry (CMHI).

In April, the steel cutting ceremony of *Greg Mortimer,* the first expedition vessel in SunStone's Infinity-class series, took place with delivery scheduled for August next year. It was at this ceremony that a shipbuilding contract was signed between CMHI and SunStone Ships for the second vessel, scheduled for delivery in August 2020. The third newbuild will be ordered in May and the fourth in Q3 this year. Mr Lund said this was "faster than expected."

He is confident the options will also become firm orders. "We have a lot of interest in these ships. We do not order ships unless we



CMHI director David Zhu (left) and SunStone Ships president Niels-Erik Lund sign the shipbuilding contract for a second cruise ship

have charters. I think the options will come through – we have a lot of good negotiations going on with charterers."

The company is building the ships in China, but with a huge amount of support from Europe. Norway-based Ulstein Design & Solutions has been awarded the contract for the design and equipment for the expedition cruise ships. A unique offering from Ulstein is its patented X-Bow design, which is being used on SunStone's newbuilds – the first time this concept will be used on a cruise ship.

Mr Lund said "Ulstein has built 115 X-Bow ships around the world, with more than 50 of these built in China. They also have quite a large organisation in China, so they are used to dealing with Chinese shipyards and used to delivering equipment packages from Europe to China. The way we see it is that it will be a European-designed and built ship assembled in China."

Meanwhile, Finnish company Mäkinen is the main turnkey supplier for the vessels' interiors. The company has worked with SunStone for many years and is currently upgrading two cabin decks on SunStone's *Ocean Diamond.*

The plan to build the ships in China has worked very well for SunStone Ships – the company has scooped a better price and better financing than it could have obtained in European shipyards. "So far we are extremely pleased with the relationship," said Mr Lund.

The relationship is win-win as it is also very positive for CMHI. "Chinese [yards] do not have the experience in building cruise ships – this contract means that they can learn and see how it is done and in the future build much larger cruise ships," said Mr Lund. He said it was a "smart" move by the Chinese to build a series of small ships rather than build "one large cruise ship and lose a lot of money." Instead, they can build 10 small ships and learn.

While for now European influences are very important in SunStone's newbuilds, Mr Lund is sure the Chinese yard will learn and build up its experience so it can do more of the building and design in the future. "I am sure that will happen; the Chinese will learn. We have seen that in other industries, such as in cars and computers. I am sure Chinese shipyards will build high-quality cruise ships."

Homing in on the design of the newbuilds, Mr Lund said a major attraction for using Ulstein was its X-Bow hull-line design, which the company has built for offshore ships that sail in bad weather and rough seas. The major difference between this hull line and a conventional one is that the X-Bow has a greater volume at the waterline because it is is much bigger and wider than a conventional narrow and slim hull shape. "In rough seas, a slim bow will not have a lot of volume down in the water and will pitch much more than an X-Bow," explained Mr Lund. Furthermore, in bad weather a huge spray of water will be created by a conventional bow hitting the waves, creating noise and vibration and causing the ship to brake slightly. In contrast, with an X-Bow, the wave will move off the bow "so there is no slamming and you don't have the vibration and vessel stopping effects, meaning there is much more comfort for passengers, better fuel efficiency and the ship will be much faster in bad weather. With a conventional hull-line, the ship has to slow down as otherwise the waves hitting the ship will damage it," said Mr Lund.

Explaining the fuel efficiency, Mr Lund said "Fuel efficiency is no different in normal, good weather. But the worse the weather is, the more fuel efficient the X-Bow will be because it doesn't have the slamming and the braking."

SunStone Ships is also enhancing comfort with another 'first' in the cruise ship sector – it is installing Zero Speed stabilisers – which have only ever been used on large, luxury private yachts before. Provided by Rolls-Royce, they are used when loading or at anchor and move hydraulically, based on wave movement. Mr Lund said 80% of rolling or pitching disappears when these are used, which will be an important factor for the comfort of SunStone's passengers.

Zero Speed stabilisers will also be installed on one of SunStone's current vessels, *Sea Spirit* in April 2019. Explaining why, Mr Lund said this cruise ship is one of the smallest vessels in its fleet and therefore moves more than the larger ships. He said the company would start by retrofitting the stabilisers on this vessel and would "most likely" retrofit them to other ships in its fleet.

Another unique feature about SunStone's newbuilds is that they are being built according to safe return to port (SRTP) requirements. However, the company is not required to do this as its ships are not longer than 120 m. But it is something Mr Lund feels strongly about. "We wanted SRTP because of the remote areas in which we operate. We think this is the right decision. It costs a lot more but creates a much safer ship."

The ships are being built to Polar Code 6 – the highest polar code notation for a non ice-breaking ship. Mr Lund emphasised "We are trying in all aspects to be as safe and comfortable as we can be."

The new ships will run on marine gas oil, like the cruise ship owner's existing fleet. "We cannot use LNG as we can't buy this fuel in remote areas and from a tank volume point of view, we would not have enough LNG on board for 20 days without refuelling," Mr Lund said. But if it were available, then the company would use it as it is "even better than marine gas oil."

The company is busy upgrading its existing fleet, having spent more than US$25M in upgrades over the last few years, which include retrofitting six new engines on *Ocean Adventurer* to make it much more fuel efficient, while all interior spaces on *Sea Spirit* have been upgraded over the last three years.

"Next year our first newbuild is delivered, but it is important for us to keep up the quality of existing fleet," Mr Lund said. PST

Niels-Erik Lund (SunStone Ships)

Niels-Erik Lund has over 40 years of experience in the passenger ship industry. His main responsibilities include applying his insight towards acquisitions of second-hand cruise ship tonnage for existing clients and new investor groups and managing newbuild initiatives. Prior to founding SunStone Ships, Mr Lund was one of the original founders of International Shipping Partners and until 2012, was the company's largest shareholder in addition to serving as its president and chief executive. He also previously served as president and chief executive of Scandinavian World Cruises/SeaEscape and worked with DFDS in Copenhagen, Denmark.