World’s Largest Sail Ship Is Steeled for Ocean Travel

The Golden Horizon is a five-masted sailing ship for the 21st century whose steel-built hull makes it capable of navigating all the way from the Arctic to Antarctica.

Sitting on the northern side of the Split peninsula in Croatia, the Brodosplit shipyard has been crafting and launching vessels for nearly 100 years. Large enough to seem like an Adriatic island in its own right, the shipyard has produced more than 400 cargo, military and civilian vessels in that time.

Even with such a storied history, one of the shipyard’s more recent projects stands out as a unique achievement. The Golden Horizon is a steel-built, five-masted barque that, at 162 m long, is the largest sailing ship in the world.

Designed by Polish naval architect Zygmunt Choren, the Golden Horizon is based on a famous cargo ship, the France II, that was built in 1911. Choren was inspired during a trip to a Paris museum to create a modern cruise ship with old-world style.

Sailing Into the Future

This €100 million, premium-class vessel requires a crew of 150 to serve its capacity of 300 passengers. The vessel’s 224 cabins are set over six decks, with vacationers able to enjoy all the elements of a top-class cruise — three pools, multiple restaurants, as well as a library and full spa.

The large crew isn’t just needed to provide hospitality. With the ship’s 39 sails covering 6,400 m², the deck is staffed with highly trained sailors who allow the Golden Horizon to hit speeds of 20 knots per hour with a fair wind.

Able to stay at sea for two to three months without refueling, the vessel has been meticulously readied for storms, fires or even serious equipment failure. All its major systems have a compete duplicate, including two engine rooms that can provide a speed of 16 knots per hour, as well as two full water and electric supply systems. Two of its electric motors
also feature a diesel backup, ensuring the ship can make a safe return to port whatever the situation.

**Steel on the Horizon**

At the heart of this unique vessel is its high-strength steel hull, which means it can safely navigate from ice-laden polar seas to tropical coastlines and stormy oceans across the world. “This ship was built from Ukrainian steel. Thanks to the steel’s properties, the vessel can travel to the North Pole,” says project manager Radovan Načinović.

Made from 90% steel, the Golden Horizon was constructed at Brodosplit from 4,500 metric tons of steel plate and sheet, with the majority provided by Ukrainian steel manufacturer Metinvest. Up to three vessels can be constructed simultaneously at the shipyard, with the hull being the most steel-intensive part of the process and taking six months to be fully assembled.

To ensure the highest-quality finish and assembly, the steel sheets are sandblasted to clean them before being coated with an anti-corrosive paint. The painted sheets are then cut using underwater plasma cutting. This procedure is computer controlled, allowing for incredibly precise cutting so that the finished sheets fit together seamlessly.

Once the steel sheet and plate has been prepared, the vessel assembly is performed on the slipway. When the main structure is completed and given another coat of anti-corrosive paint, the vessel is launched to test the seaworthiness of the hull. Then the ship is returned to dock so that the rest of the assembly work can be finished.

With sustainability an increasing concern for the tourism sector, unique and groundbreaking vessels like the Golden Horizon could become a more common sight on coastal seas. Able to afford passengers the height of luxury combined with the safety and reliability that only steel-built engineering can provide, this ship can help cruise vacations sail into the future.

This and other stories are available at stories.worldsteel.org.