

Ships above 12,000 TEUs drive 100% increase in average ship size

March 13, 2024



The 15,000 TEU Emma Maersk, built in 2006 was the largest vessel of its time.

“Since 2006, the average container ship has doubled in size to 4,580 TEUs and ships with a capacity of more than 12,000 TEUs have accounted for 51% of the fleet’s capacity expansion. Today, just 626 ships provide 36% of the fleet’s capacity, and the trend is set to continue as the large ships dominate the order book,” says Niels Rasmussen, Chief Shipping Analyst at BIMCO.

When Emma Maersk was delivered in August 2006, the ship was by far the largest container ship in the world. It is 400 metres long, 56 metres wide and has a capacity of about 17,800 TEUs (14,000 TEUs when delivered). The previously largest ship had a capacity of 9,500 TEUs and was delivered just two months earlier.

In 2006, there were not many indications that Emma Maersk signalled a revolution that continues to dominate container shipping today. The only

ships on order of a similar size were Emma's seven sister ships. In fact, it was another six years before the ninth similarly sized ship was delivered.

However, a new category of container ships was born eventually, the Post Panamax. Too large to fit even the new Panama Canal locks which opened in 2016, they have a capacity of more than 17,000 TEUs. The very largest today has a capacity of 24,000 TEUs.

A smaller ship type developed alongside the very largest. They are known as Neo Panamax and can transit the new Panama Canal locks with a capacity of 12,000-17,000 TEUs.

"The Neo Panamax and Post Panamax ships have significantly reduced cost and greenhouse gas emissions compared to smaller ships. Compared to a 10,500 TEU ship, the very largest ships cost 25% per TEU less to build and bunker consumption and greenhouse gas emissions are also 25% lower per TEU," says Rasmussen.

The very large ships have also meant that service frequencies have not developed as they would have. Still, as the fleet now consists of 68% more ships than in 2006, liner operators have been able to expand service frequency and coverage even when factoring in that sailing speeds have reduced significantly during the period.

"Neo Panamax and Post Panamax ships contribute nearly 70% of the capacity on order and will continue to drive growth in the fleet. We estimate that at the end of 2025, the average container ship will be larger than 5,000 TEU and the two segments will contribute more than 40% of the fleet's capacity," says Rasmussen.