

LARGE AND EXTRAORDINARY SHIPS EMERGING FROM YARDS

FPSO Dalia sailing from Cape Town in August. This photograph shows her being towed stern-first, prior to her being turned for the tow to Angola. She is now on station off the Angolan coast, and is likely to stay there for about 20 years. The huge vessel attracted unprecedented attention during her two-month stay in Cape Town.

Photograph : Andrew Ingpen, Ocean Images Cape Town in association with Offshore Maritime Services, Cape Town



Naval architects - those interesting folks who do a variety of tasks from supervising tricky and often dangerous salvage operations to musing over the shape of ships to come - are having a field day.

For some, the latter function is now materialising into several fascinating ship profiles, as, apart from giants like **FPSO Dalia**, other equally remarkable vessels are emerging from the shipyards.

Emma Maersk, the company's new generation of containership has caught the imagination of the shipping world. At 397 metres long - almost four times the length of an international rugby or football field - and 57 metres in beam - the wingspan of a Jumbo jet is only seven metres wider - **Emma Maersk** will carry about 11 000 twenty-foot containers (TEU), although some observers believe that, given the ship's deadweight and the fact that she will always have a number of empty or partially-laden containers on board, her actual capacity may be around 13000 TEU.

To put her size into perspective, the largest containerships on the South African trade, the MOL sisterships, - **MOL Caledon** and **MOL Cullinan** - are one rugby field shorter and have less than half of her container capacity. **Windsor Castle**, the erstwhile flagship of the **Union-Castle Line**, was 239 metres long, and the old **Queen Elizabeth** that Capetonians saw several times during World War 2 and again when she came on her delivery voyage to Hong Kong as **Seawise University** was 315 metres.

Shipmasters with years in command of fairly large containerships note that their maneuverability is superb, even while bowling along at 26 knots to meet tight schedules, favourable tidal conditions for their deep draught and allocated berthing, cornerstones of container shipping.

One such soul mentioned that **Emma Maersk's** master may have a few anxious moments as this huge vessel - on departure from Singapore for Europe - makes a starboard turn to cross the very busy traffic separation zones. But, reflected another, she is only marginally larger than some existing vessels that operate very efficiently and safely.

It's noteworthy that the largest containership a decade ago had half the capacity of **Emma Maersk!**

This first "ultra-carrier" will enter the Europe-Asia service next week, amidst news that Chinese trade is still booming, while Japanese exports have revived from a period of slower growth, particularly as global vehicle markets have improved. This scenario that favours containership operators runs contrary to the predictions of those doomsayers who forecast a shipping downturn this year.

More impressive to passenger ship spotters will be the dimensions of a new vessel that will emerge from the Aker shipyard in Turku, Finland within two years. Of 220 000 gross register tons (**Windsor Castle** was 37640 grt) she eclipses even the magnificent **Queen Mary 2** in terms of length (360 metres) and passenger complement (5400 passengers - and probably around 2000 crewmembers). Her price tag is a staggering 900 million Euros.

Like her smaller consorts, she will probably be based at Miami for her lifespan as she will not be able to transit the Panama Canal, even when it is enlarged.

An architect's sketch of the ship shows a silhouette resembling a block of flats - and on each side are 9 lifeboats that will double as tenders to ferry passengers ashore at various Caribbean islands.

Consider the ramifications of the ship developing a severe list, or if a fire, belching acrid smoke, should engulf one side - it happened earlier this year to a cruiseliner- forcing the vessel to be abandoned.

What if an ice-strengthened rustbucket side-swiped the liner on the port side, carrying away the lifeboats that are not very high above the water and causing nasty gashes below the waterline.

"*There are so many watertight compartments,*" is the response, "*that she cannot sink.*" **White Star Line** passengers heard that in April 1912.

If lifeboats on one side were rendered unserviceable, passengers - of whom hundreds would be aged or semi-mobile - would be herded to the other side, and even my dubious schoolboy record in mathematics is sufficient to calculate that every lifeboat would need to carry about 600 people!

"*Ah!*" cry protagonists of the project, "*there are dozens of liferafts and other lifesaving equipment!*" I guess the 2000 crewmembers might need those.

Besides giving attention to mammoth containerships and fabulous cruise liners, naval architects' skills are being tested on a new front - the Arctic. Mineral riches in the region, including oil, are opening new trade routes into that mysterious world, necessitating ship construction that encompasses new designs for the routes through the ice.

Aker yard has developed a 650-TEU containership for passages through heavy ice. With her accommodation aft, she has two sets of bridge controls : a conventional set for open sea voyages, and one facing aft so that watch-keepers are close to the action when the vessel switches to ice-breaking mode by going astern on her single electric pod drive, rather than a conventional propeller.

Interestingly, the ship has 21 plug points for refrigerated containers - perhaps to keep certain cargoes above freezing! These huge ships represent engineering feats that rival the ilk of Isambard Brunel, the British engineer whose bridges, railways and steamships extended the limits of nineteenth century science.

Regrettably, I doubt whether any of these modern maritime marvels will be preserved as is Brunel's **Great Britain**, now carefully restored and drydocked in Bristol, 163 years after her launching.

On the other hand, none of Brunel's ships needed massive insurance cover lest an accident brought packs of baying legal beagles.
