Product tankers - design redundancy

Many of the new product tankers under construction for European coastal operations are being built with twin propulsion systems and other redundancy features.
Charterers of European coastal tanker tonnage, traditionally amongst the most demanding in the world, have become even more sensitive to maritime safety issues in the wake of the Erika and Prestige sinkings.
One outcome of these oil company concerns is the emergence of a new breed of sophisticated product tanker for distributing refined petroleum and simple chemicals on the European coastal routes.
The vessels, as typified by the current newbuilding programmes of Crescent Tankers and Everard, are being provided with twin propulsion systems and other features which enhance ship safety and efficiency compared to the previous generation of coastal tankers.
For example, the six 8,000 dwt product/chemical tankers currently building in Romania's Damen Galati shipyard for German owners to the so-called Safety Chemical Oil Tanker (SCOT 8000 design) not only have redundant propulsion and steering gear systems but also hull forms which have been optimised to increase propulsive efficiency.
The SCOT 8000 tankers are configured with twin skegs to accommodate the full afterbody and the two engines positioned relatively far aft in independent engine rooms.
In-service performance of the first ships in the series has confirmed the good manoeuvring performance of the ships, with the design exceeding the IMO recommendations regarding yaw checking and course-keeping ability.
The European coastal tanker market is an extensive one, and one in need of replenishment. Of the 1,000 tankers in the 3-10,000 dwt range engaged in regional feeder trades, over 500 are single-hull vessels. With many of these latter vessels needing to be replaced over the next few years, shipyards and engine manufacturers are looking to busy times ahead.
In June 2003 Concordia Maritime AB, Stena's stock-listed tanker arm, extended the concept of double propulsion and steering systems to the Handymax segment with orders for four 49,900 dwt, plus option two, so-called P-MAX tankers.
The ships apply the group's "MAX" tanker design features, including the complete doubling of critical functions, that have already been incorporated in a pair of V-MAX very large crude carriers and a pair of C-MAX LPG/product tankers serving ChevronTexaco in the Caribbean distribution trades.
The new P-MAX vessels are being built at the Brodosplit yard in Croatia to Finnish/Swedish Ice Class 1B standard, making them suitable for the demanding Baltic trades during the winter season. The first pair, which will be delivered late in 2005, have been fixed to Total under five-year charters.
The P-MAX ships will have higher speeds, greater beams and lesser drafts than traditional Handymax product tankers. The configuration provides a cargo-carrying capacity of 70,000 m3 compared to the 55,000 m3 usually available on a Handymax ship.