

On order
Ro-ro

CRUISE & FERRY Info

MAY 2002 | NO. 5 |

COASTAL RO-RO THE SOLUTION TO EUROPE'S TRANSPORT WOES?

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Straight lanes

■ The successful Stora-Enso project now looks to have a major spinoff in the ro-pax arena.

One of the most successful aspects of the Stora-Enso project is the fast loading and unloading times achieved by the use of full width double level ramps.

The straight driving lanes cut out any need to manoeuvre the Stora-boxes into position. The designers of the three vessels, NAOS of Trieste and Globtech Marine in Gothenburg, have teamed up again to introduce this handling concept to ro-pax vessel design.

The latest design to emerge from the co-operation is a 2,700 lanemetre ro-pax with an overall length of 189.5 metres and 28.5 metre beam. Interestingly, the vessel's dimensions are very similar to TT-Lines' recently delivered NILS HOLGERSSON and PETER PAN. These vessels have been equipped with a diesel-electric/pod propulsion system in order to squeeze the maximum number of lane metres from the cellar deck.

However, the NAOS/Globtech design achieves a greater lanemetre intake without recourse to expensive propulsion solutions.

ONE OF THE KEYS TO THE NEW CONCEPT is that the lower hold still occupies a large percentage of the ships length with the two main engines located in the side compartments coupled to the propellers via an innovative gearbox arrangement.

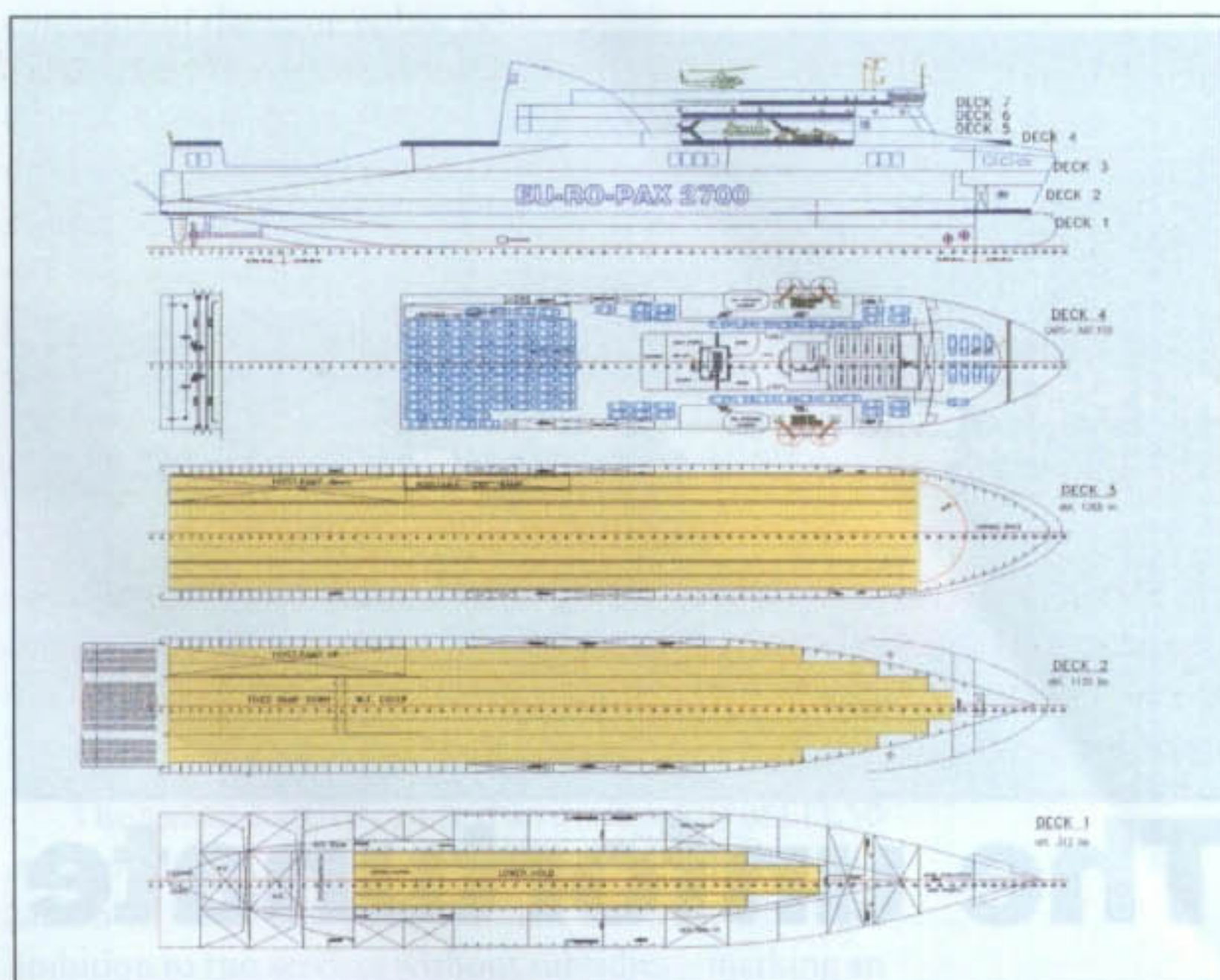
Unlike the three Stora-Enso sisters, the SCHIEBORG, SLINGEBORG and SPAARNEBORG, there is no long shaftline running beneath the lower hold. The four-lane lower hold is accessed via a fixed ramp that is fully 12 metres wide, so that straight driving lanes would also be achieved there.

With the great knowledge that NAOS has built up designing ro-ro and ro-pax vessels for the prolific Visentini shipyard, the design incorporates the latest hullform developments.

The 22.5 knot design would be propelled by a pair of 9,450 kW main engines resulting in a fuel consumption of about 75t/day, well below comparable vessels. A service speed of over 25 knots is achievable if a pair of 16,800 kW main engines was fitted.

ONE OF THE GOALS OF STRAIGHT DRIVING LANES is also to rationalise the lashing and securing system. Hamworthy-KSE (now TTS Ships Equipment) in Gothenburg has made great strides with an auto-lashing system which is a development of the trailer trestle used by DFDS Tor Line.

In TTS' system, special kerbs are fitted between the driving lanes which give lateral support to the trailer wheels but also can lock directly with the trestle, which is securely attached to the trailer's kingpin. The operation to secure a



trailer is quick, efficient and requires no manpower.

With the troubles that some ro-ro operators are now having with their shore based lashing gangs, the new system is most interesting and offers real scope for the rationalisation of ro-ro handling. Unlike earlier semi-automatic lashing systems, trailers can be of any length and configuration and the lanes do not preclude the loading of mafis, cars or accompanied trucks.

DESPITE THE GREAT ATTRACTIONS FOR OPERATORS, the stumbling block to the wider acceptance of the concept probably is in the lack of port facilities or port authorities interested in making the necessary investments in wide, double level linkspans.

In the Mediterranean, ro-ros are used to just dropping their ramps at any quay. The difficulty that even operators like Superfast have had to build modern terminals is well known. Now it is seven years since Superfast introduced their double level loading vessels to Patras and Ancona but still no matching facilities exist or are even planned in either port!

The design is also well adapted to recent demand trends in the ro-pax field. A separate cardeck is located above the upper trailer deck with a capacity for up to 150 cars. 100 two- or four berth cabins with restaurants and lounges are envisaged but this, of course, can be adapted for individual customers.

Compared with other recent designs, the NAOS/Globtech concept really advances the Ro-pax idea without introducing levels of sophistication and cost that are actually doing very little to improve the lot of the ultimate users: the truckers. ■

The concept with straight driving lanes, introduced on the Stora Enso vessels (below: SPAARNEBORG) has been applied to a ro-pax design, capable of 2,700 lanemetres (drawing above). NAOS and Globtech Marine are behind the design.

