

The pair of TOLL/Jinling new RoRo vessel successfully tested at sea

The first vessel has undertaken sea trials at the end of September, and the second one at the end of November. Speed-Power performances has been measured and found in perfect agreement with Towing Tank Prediction (HSVA), exceeding the contractual terms, and with a good margin on the EEDI. The vessel has shown a very good behavior with rough sea which did occurs for few days during the tests, with the very effective rolling reduction given by its Flume Tank (Hoppe).

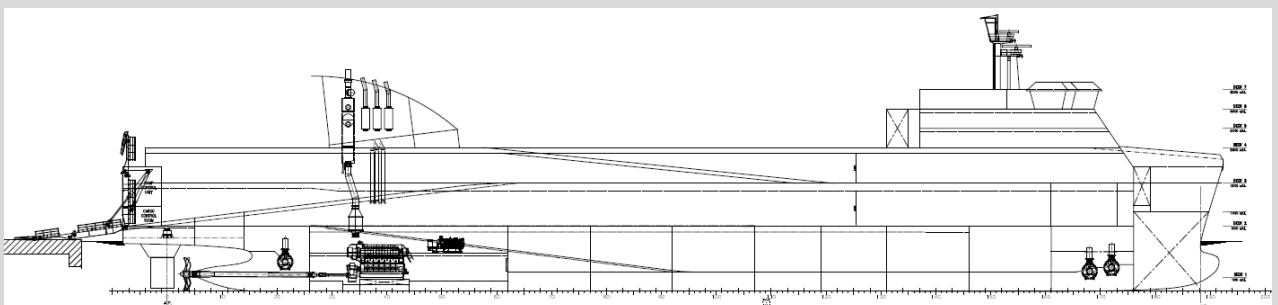


New Compact RoRo design for the Med

Due to the big increment of traffic on their route, a Mediterranean Owner (confidential) has ordered to NAOS the feasibility study for a small size RoRo cargo vessel.

The vessel shall be a simple one, single screw, 12 driver's cabins.

Despite the relatively short length of 160 m, the vessel is able to transport 2900 trailers lane meters, on 4 cargo decks. The design speed has been limited to 16.0 knots, therefore the necessary power is quite small, leading to a fuel consumption of about 17.0 t/24h.



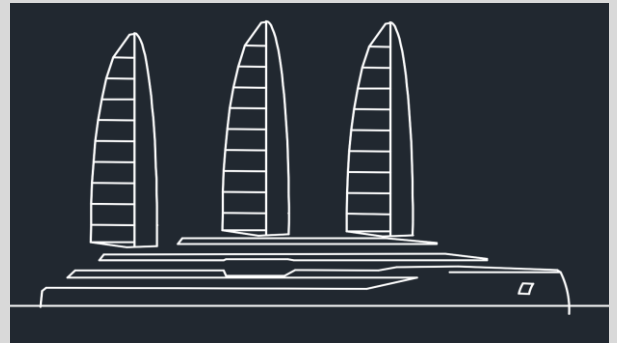
Zero Emission for Cruise

NAOS is going to introduce a full “ECO” concept for Cruise/Polar ships, as a new research theme. Having identified the cruise business as one of the less eco-friendly recreational and touristic activities, NAOS has recognized the need of a new generation of vessel with much lower environmental footprint. Main propulsion will be by sail systems. Wind is the only high-density energy system easily available at sea. Recharging batteries can be done whenever the wind energy is in excess to what necessary for reach the cruise speed.

Reasonable number of solar cells will be installed to recover sun energy. Average speed shall be off course lower than conventional ships, but that is a constraint which shall be socially accepted.

Off course a fuel-based power generation shall be installed on board for safety reason, to allow a decent speed. Again, the fuel type to be selected on the base of renewable concept (Bio-fuel).

Waste management shall be especially considered, introducing in the shipbuilding market machineries like organic waste digestors to produce biogas and fertilizers. Zero plastic on board will be also compulsory for the program. At the end the vessel shall be almost a “zero waste” ship.



New engineering tools at NAOS

Relatively high workload during 2018 has made NAOS deciding to acquire new tools for engineering calculation. In the field of Naval Architecture or more precisely of the stability, Aveva has been the sole tool in use at NAOS since 1993 (former BMT, KCS, Tribon). After test periods of several other software, NAOS is close to sign a contract with NAPA, which is presently leader in the market, and support the most recent IMO rules.

For structural calculation, Femap has been recently selected to perform FEM analysis of 3D models which are prepared and meshed within 3Dexp (Dassault Systeme), creating therefore a high-level suite for modeling and analysis.

First run at sea for HYPATIA DE ALEJANDRIA

The first LNG-fueled RoPax built by Visentini Shipyard for Balearia has made first runs at sea.

A top speed at partial draft in excess of 26.2 knots has been recorded, showing better performances than the previous similar buildings. That is due to the addition of transom stern flow deflectors, and the silicon paint on the hull. At the time we wrote this newsletter, the vessel is ready for the first bunkering of LNG.

