

Andreas Antonatos: Strong presence of INTRA MARE in the cruise industry



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In what way Greek Companies have penetrated the Cruise Industry sector? How difficult is to stay in the field? What are the new technologies? Mr. Andreas Antonatos, Sales & Projects Engineer INTRA MARE, gives the answers in the following interview.

N. For which items of Cruise & Ferry sector is INTRA MARE engaged in?

A.A Actually there is a very large list of makers & systems but for the purpose of this interview, we could say that INTRA MARE's Cruise & Ferry principals can be split into two wide categories:

First category covers makers for Machinery, Safety, Electric & Automation systems; these have to do with various components & systems for Engine Room, Deck & Bridge and in some aspects are commonly applied for dry and wet cargo vessels, bulk carriers, tankers, etc.

Second category refers to makers of equipment purely for passenger accommodation area.

In both categories, recently applied regulations and Eco-ship approaches coming from various demands like environmental protection, green profile, energy saving practices, etc. have brought new things to the industry. Designers, engineers, shipyards & Owners are given a plethora of brand-new materials, systems and solutions to introduce to their vessels. The aim is towards sustainable shipping, protecting the environment, while at same time the drive is always how to minimize total cost of ownership & operation within of course safety. Especially in accommodation, we can add two more parameters; comfort and aesthetics.

N. Ok, what new technologies in regards with first category makers? Give us two examples of Makers / items that INTRA MARE would like to address?

A.A Speaking for fuels and Emission Control Areas for Sulphur Oxide (SECA), we know that Mediterranean is not (yet) a SECA zone and is open for speculations if, in near future, it stays like this or not. However, a new building of a cruise or passenger vessel nowadays should allow for flexible operations in current / future SECA zones, so it might be wise to have an exhaust gas emission reduction system for SOx, or scrubber. Such a system is tailor-made to fit perfectly within a new build design, but in general can be also available as a retrofit. Equipped with a scrubber, a passenger vessel sailing in SECA can burn Heavy Fuel Oil meeting successfully all relevant regulations. Scrubbers come with an initial high investment but if you sail in SECA, the benefit of burning lower cost HFO vs. MDO will sooner or later bring you back the expense. In a new building, some good scale savings can be made for the engineering and installation cost carried out within the shipyard. We point out that Yara, INTRA MARE maker for scrubbers, can offer systems of highest quality anti-corrosion steel with minimum footprint, which are always capable for dry-run operation (acting like a

silencer). They can be designed either for open or for close or hybrid loop. In case of close loop, where the processing involves some alkali media, it is well-noted that Yara uses Magnesium Oxide (MgO) as an alkali; that ensures safe handling by crew, gives high efficiency performance and effective logistics (competitive cost, worldwide sources, steady price levels, etc.). These are very attractive benefits that Ship Managers might like to compare versus other media like Caustic Soda (NaOH), used by competitive systems.

N. And what is the second maker you would like to let us know?

A.A We represent BMT-Smart, member of the British Maritime Technology (BMT), which offer a full (software & hardware) package of Fleet Vessel Performance Monitoring, with option to include their own type of Torque meter. Up to now, no rules make such system mandatory, so it is something entirely volunteer to have onboard, coming with an onshore software module. But again, regulations like MRV look like that not only ocean going vessels but also short sea vessels of a certain minimum tonnage, including passenger-ferry sector, would find as a wise step forward to implement a kind of monitoring system to serve various demands of operational data handling. Such system usually functions as a "hub" to receive various signals from bridge (Speed Log, DGPS, ECDIS, etc.), from engine room (fuel consumption, shaft power torque) and any large energy consumers (like accommodation systems) plus it can get connected with any third part automation system, AMS, etc. Then, by using open architecture software platform and cloud-web applications, data, after being properly filtered, are transmitted onshore to identify ship performance, define the impact of weather, notify for any energy consumption discrepancies and provide assistants in aspect of optimized operation or preventive maintenance. These systems, well-proven within the tanker sector being motivated by oil majors to benchmark long-chartered tankers, seem like that can be pretty much applied to cruise, passenger & big ferries, where the need to handle essential data might be even more challenging in aspect of quantity and frequency! In case of a retrofit, BMT-Smart experts attend a vessel survey to conduct a study for system introduction, verifying existing sensors & third part systems connectivity, proposing minimum needed upgrades and providing all necessary cabling details. The result will be a 100% tailor-made system, based of course on standard knowhow of marine engineering, that will timely (auto)generate reporting documentation which the shipping company would like to have to fulfill multiple needs; operations, tech-

nical department, management.

N. Now, tell us a few things concerning the accommodation makers of INTRA MARE, who are they in general and any specific new technologies in this region.

A.A We represent Modell Mobler for passenger seats; they are Norwegian makers, long-established and widely respected for their advanced & modern designs with many references in Greece, whereas for pilot and operator chairs our principals are NorSap, again from Norway. Gerflor is a world specialist from France for vinyl floors, being used as a decoration finishing product. We have also started up a very promising cooperation with Desso, Dutch maker of marine carpets. IMS from Norway offers class-approved sliding water-tight doors, which are used to divide vessels into watertight compartments. For ship building, in regards with cement floor, we use special super light products from Weber (Norway), member of Saint Gobain Marine group. Under same group, is French manufacturer Isover offering insulation materials that can be used for floors, ceilings, panels, piping and ducts. Their products meet all modern criteria of low weight, thermal insulation, acoustic performance and fire safety. At same time, special attention has been given by the maker for product's cost effective logistics and quick & trouble-free installation. Both Weber and Isover are among world leaders in their domain, involving modern developments in materials science & manufacturing to produce a new generation of low weight materials that satisfy designers, installers and of course Owners who eventually operate less energy consuming vessels.

N. Give us some example on the weight savings ensured by these new materials.

A.A. For a Ro-Ro of 2800 passengers and 900 passenger cabins the total need only for insulation was calculated to be around 510 tons for decks and bulkheads and 65 tons for cabins, in total 575 tons – that is by using conventional materials. By choosing Isover light weight products, the total figure was verified to be 286 tons, which is a 50% reduction! What was the result of this reduction? First of all, we had an improvement of vessel stability as 289 tons less displacement is equal to -7 cm draught, -1% block coefficient and -10 cm vertical centre of gravity. Also, a lighter material will demand less amount of superstructure, meaning even less weight and investment.

The total fuel cost savings in that case was estimated around 60,000 USD per year (using current prices) resulting in 900 tons less CO2 emissions annually. At same time, by choosing Isover, that particular vessel will have the benefit of added payload; 289 tons savings is equal to 6 trailers more than vessel's capacity with conventional insulation. By engaging also Weber super light cement flooring, the benefits get even more significant. For sure, these modern products deserve a careful evaluation during design stage and INTRA MARE is present with their principals to assist in such tasks; especially in the cruise & ferry industry, also in the making of aluminum structures and mega yachts, one of the main design objectives is to save from unnecessary weight, so vessel performs efficiently.

N. Speaking about energy efficiency, what about lights and LED technology? Can be considered as a trend in passenger sector?

A.A INTRA MARE represents Glamox-Aqua Signal with a wide range of marine lights including of course LEDs. Actually, they have recently developed a brand-new series of originally LED designed products that can be applied to all spaces of a passenger vessel; from engine room to the bridge and mast and from garage to cabins, public spaces and aux. areas (kitchen, cold stores, toilets, etc.) including evacuation lights, low level lighting and various decoration strip designs. By using lighting calculation software and product specialists, engineers & designers, Glamox-Aqua Signal can select the best LED solutions to illuminate any given area ensuring low energy demands and almost zero maintenance. Also, possible is to propose minimum cost & time retrofits from conventional tubes to LED lights, which actually can be replaced by the crew as they are specially designed as replacement kits.

N. Does Glamox-Aqua Signal also offer lights for outside spaces?

A.A Yes, this is true and actually their new LED products can meet all possible demands for outside installations; navigation, signal and search lights, flood lights (with spot, narrow, medium and wide beams), waterproof technical lights, veranda cabin lights etc. We speak for hundreds of locations and thousands of lights, many of those in very difficult access locations. That's why we propose LED lights even more emphatically for outside spaces, where economy comes not only from energy saving but also from zero downtimes

due to long lifetime; all LED products of Glamox come with a 100,000 hrs warrantee, which is more than 11 years !

Now, back to flooring solutions, for outside deck covering systems, we represent Bolidt from Holland, world leader with various products applied for all type of external areas, from swimming pools to sun decks, bars, play grounds & sports fields, helidecks, etc.

For weather or spray tight doors and hatches, we represent Libra, from Norway, which has a complete range of IMO-compliant, hinged, external and internal bulkhead doors made of steel, aluminium or composite materials.

Finally, for any demands of interior, or exterior glass solutions with all relevant marine & fire safety approvals, we can propose again products from St Gobain Marin group.

N. So, do you anticipate further business development in regards with INTRA MARE 's Cruise & Ferry makers?

A.A Definitely – Cruise industry is one among very few that keeps upcoming with an impressive rate. But also in our region, we witness some very promising developments and that is a clear sign that the best are in store to come.

Eco-ship approaches coming from various demands like environmental protection, green profile, energy saving practices, etc. have brought new things to the industry. The aim is towards sustainable shipping, protecting the environment, while at same time the drive is always how to minimize total cost of ownership & operation within of course safety. Especially in accommodation, we can add two more parameters; comfort and aesthetics.