

Impact of Marine Vessels Produced with Composite Materials in Their Performance and Reduction of CO₂ Emissions.

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Abstract

Composite materials that have started to be used in the production of tourist sailing vehicles especially those of the yacht type, have proven in practice the designers' expectations for the great advantages they have brought in comparison with steel. The performance of new generation ships of this millennium will require the ever-increasing use of innovative materials to meet the growing demand of potential buyers of these vehicles. On the other hand, based on the principles already sanctioned by the European Community for respecting the norms set for CO₂ emissions from shipping - in accordance with the Kyoto Protocol on Climate Change, it is necessary to produce marine vehicles that reduce significantly the weight of marine vehicles and for consequence the engine power and fuel consumption will significantly reduce CO₂ emissions. This, in addition to the innovation that accompanies the production of marine engines, demonstrates the trend of the development of composite materials in relation to traditional materials. The global composite materials market is estimated at \$ 24.4 billion in 2014 and is projected to reach 5.8% growth and is expected to grow at 5.8% in the next five years, reaching 34.4 billion in 2020. Through this scientific paper I will bring a contribution to the maritime sector, analysing the positive impact that has the production of marine vessels with composite materials in maritime transport industry, not only for their excellent technical performance, but also for their positive impact in CO₂ emissions in maritime straight. The study has been developed based on data analysing of maritime vessels in the Strait of Otranto.

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