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"ONE DIGIT" ESTIMATION OF NAVIGATION AREA PARAMETERS FOR A MONOHULL FAST FERRY

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In modern versions of the Directive 2009/45/EC and in some rules of classification societies, for example Registro Italiano Navale, options for the designation of the navigation area for passenger ships are proposed. Fast ferries carry not only Ro-Ro cargo, but also a large number of passengers and therefore belong to the type of passenger ships. Considering the high speed of these vessels, up to 40 knots and the short distance from the port of refuge during the voyage, liferafts are the main life-saving appliances on board the high-speed ferry. By the rules of the International Code of Safety for High-Speed Craft, the time for rescuing people from aboard a high-speed passenger ship is limited. In this article, the characteristics of the rescue boat for rescuing passengers from the ferry will be determined. The worst case for a rescue craft at moving against a wave, with a typical wave height for this area, will be considered. The permissible value of the width of the navigation zone will be determined, taking into account the survival time of a person at the water temperature of a given area.
When designing a high-speed passenger ferry, it is very important to know at an early stage of the project about a possible decrease in speed when moving on a sea wave. This speed reduction can be predicted at an early stage of the project based on the data on the wave parameters in the region and the characteristics of the fast ferry.
To solve these problems at the first stages of the project, for a "One digit" assessment, Energy Wave Criterion (EWC) will be used that takes into account the kinetic energy of the vessel and the energy of the wave.

Keywords: Energy wave criterion •(EWC), monohull fast ferry, navigation area.

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