

Flow Characteristic Analysis for Hatch Type Air Vent Head of Bulk Cargo Ship by Computational Fluid Dynamics

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Abstract : The air vent head prevents the inflow of seawater into the cargo holds when it is used for the ballast tank on heavy weather. In this study, the flow characteristics and the grid size were created by the application of Computational Fluid Dynamics by taking into the consideration of comparison of test results. Then, the accuracy of the analysis was verified by comparing with experimental results. Based on this analysis, accurate turbulence model and grid size can be selected. Thus, the design characteristic of air vent head for bulk carrier contributes the reliability based on the research results.

Keywords : bulk carrier, FEM, SST, vent

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