

عنوان مقاله:

Experimental and numerical investigations about water entry of a symmetrical wedge

محل انتشار:

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نویسندگان:

,Mooud Nikfarjam - PHD Candidate, Universiti teknologi Malaysia

,Omar Bin Yaakob - Professor of marine technology centre, Universiti Teknologi Malaysia

Mohammad Saeed Seif - Professor of Centre of excellence in hydrodynamic & dynamic of marine vehicles, Sharif
,University of Technology

Jaswar Koto - Professor of Department of Aeronautics, Automotive and Ocean Engineering, Universiti Teknologi
,Malaysia

خلاصه مقاله:

In current study, numerical and experimental investigations about water entry problem were conducted for a symmetrical wedge. The water entry problem for different geometries is one of the classical methods for determination of pressure distribution and loads around the hull of marine vehicles. These data can be used for optimum structural design of vessels particularly for high-speed crafts, which are very sensitive about the weight. In addition, the quantity of load can be considered in the equation of motion for analyzing the seakeeping performance of such vessels. In this research, the numerical analysis of free falling wedge with 30° deadrise with constant weight was done and for validation of results, it was followed by experimental tests. The outputs of this study consist of some graphs for comparison of trends for pressures respect to impact time, which can be used for signification of loads on hulls during the water entry phase.

کلمات کلیدی:

Water entry, Wedge, Pressure distribution

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