

عنوان مقاله:

The Effect of Asymmetric Water Entry on the Hydrodynamic Impact

محل انتشار:

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خلاصه مقاله:

The effect of the asymmetric water entry over a submerged part of a ship on the hydrodynamic impact is investigated numerically. A wedge body is considered to study and the problem is assumed to be two-dimensional. The Results of symmetric and asymmetric impacts are compared together. The effect is found significant in the numerical simulation. The maximum hydrodynamic pressure at a heel angle of ۱۰ degrees becomes about ۹۵% more than that of the symmetric entry. The result of the present work proves the importance of asymmetrical hydrodynamic impact loading for structural design of a ship. Besides, the numerical procedure is not limited to a wedge type cross section and it is possible to apply it for any real geometry of ships and high-speed crafts.

کلمات کلیدی:

Asymmetric Water Entry, Hydrodynamic Impact

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