

عنوان مقاله:

Laboratory Investigation on Wave Reflection from Caisson Marine Wall

محل انتشار:

ششمین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1383)

تعداد صفحات اصل مقاله: 7

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خلاصه مقاله:

Wave reflection is one of important parameters in design of a marine wall. Higher amount of reflection from a marine wall increases the wave height at the front of wall and therefore the necessary height of the wall to prevent overtopping and the cost of the project. To reduce the wave reflection from a marine wall, special shapes of the wall facing should be used. One of the most efficient types, which seriously dissipates wave energy and reduces the wave reflection, is caisson wall. The amount of wave absorption by the caisson wall is dependent to wave characteristics such as height and period and the porosity and the dimensions of holes in the caisson units. This paper evaluates the wave reflection coefficient from caisson walls with different porosity (different dimensions and layout for caisson blocks). This study was done by using some experimental tests on a small-scale model walls with different amounts of porosity. The results from the tests clearly show a relationship between wave reflection coefficient and the wall porosity and the wave parameters. In some cases the wave reflection reduced by fifty percent relative to smooth wall facing.

کلمات کلیدی:

marine wall, wave reflection, caisson wall, reflection coefficient, coastal structures

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