عنوان مقاله:

Effect of buoy location on a moored Semi-Submersible Motion

محل انتشار:

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خلاصه مقاله:

Generally، floating structures play an important role for exploring the oil and gas from the sea. The force and motion prediction of offshore structures may be carried out by using time domain or frequency domain or model tests. dynamic response of a semi-submersible platform under the sea environment conditions are one of the most important issue in offshore industry. In general mooring systems have been used as an important element for decreasing motion response of floating structure. In this paper the frequency domain and time domain analysis used in Aqwa Ansys software to investigate the effects of buoy location on catenary mooring line system and obtained a moored semisubmersible motion response in sea environment conditions numerically. the JONSWAP wave spectrum and API Wind Spectrum considering as environmental condition. Aqwa employs a hybrid method by using the diffracting panels and Morison elements and each dynamic mooring line is modeled as a chain of Morison-type elements and then the equation of motion of the floating structure system is expressed in a convolution integral form

کلمات کلیدی:

semisubmersible platform، radiation/diffraction theory، buoy location

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