

عنوان مقاله:

Dynamic Inelastic Behavior of Fixed Offshore Platforms Pile-Leg Interaction Numerical Modeling Campaign 1 (Portal elements)

محل انتشار:

هفتمین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1385)

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خلاصه مقاله:

Increasingly offshore operators of steel jacket structures are requiring reappraisal of existing installations. This may be in the light of revised design recommendations based on a better knowledge of structural performance. Many jackets have foundation piles through each main leg which are welded to the structure at deck level. The annulus between the pile and leg might be filled with cement grout as a means of reducing horizontal deflections, inhibiting corrosion, and increasing energy absorption capacity. This paper aims at discussing an approach which can be used to demonstrate enhanced structural performance due to both the presence and lack of grouted piles. In this study, nonlinear fiber element will be used. Therefore, different behavior of grouted and ungrouted jackets and the relative different pile-leg interaction is investigated. The experimental results of two frames of the same geometries filled with a standard offshore cement grout in their pile-leg gap under lateral deck displacement-controlled load, together with the two similar frames without any grout, are ongoing and will be presented in near future. However, this paper presents an important comparison between the general behaviors of grouted and un-grouted offshore frames in an area where there are many existing jacket-type platforms.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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