عنوان مقاله:
Stress Intensity Factors for a Weld Toe Crack in a Tubular Joint

محل انتشار:
ششمین کنفرانس بین المللی مهندسی عمران (سال: 1382)

تعداد صفحات اصل مقاله: 6

نویسندگان:
M. R. Ayatollahi - *Fatigue and Fracture Lab., Department of Mechanical Engineering Iran University of Science and Technology*

A. Aliniaziazi - *Postgraduate students*

خلاصه مقاله:
A sample structural base support with a weld toe crack is considered. Three different types of loading are applied to the structure: a bending moment, a shear load and a compressive load.Three-dimensional finite element analyses are used to study the variations of the mode I and mode II stress intensity factors with the crack length. Because of complexity in geometry and loading conditions, the crack undergoes mixed mode loading. It is shown that the mode II stress intensity factor is not negligible compared with the mode I stress intensity factor. The variations of stress intensity factors with the crack length differ significantly for different loading conditions.

کلمات کلیدی:
Crack, stress intensity factors, mixed mode, offshore structures