

STRENGTH ANALYSIS OF THE TOP-SIDE FACILITIES OF A FPSO

Abstract

Floating Production Storage and Offloading (FPSO) is a floating ship like structure for the production of petroleum. It consists of several hydrocarbon processing units for the treatment and separation of crude oil, water and gas extracted from the well-head through sub-sea pipelines and risers. The region of FPSO between the draft level and the deck is called its topside facility. This part is highly susceptible to various dynamic loads due to the working of the machinery and fatigue due to cyclic wave loading. The strength analysis of the facility becomes imperative not only from the structure's life point of view but also from the safety of the personnel on board. This project focuses on providing solutions for the load estimations and strength analysis of the facility numerically.

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