Analisis Pemilihan Modifikasi Konfigurasi Mooring Leg pada Fasilitas CALM Buoy 35.000 DWT dengan Metode Kuasi Statik

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Abstrak

CALM Buoy is one of the offshore structure which is used for loading/unloading liquid cargo to/from oil tanker from/to onshore facilities. This paper will analyze the relocation process of 35,000 DWT front 14 m depth to 22 m depth. The relocation of CALM Bouy needs some configuration changes in its mooring system due to changes of environtmental factors and future requirements for minimum 6 legs mooring. So that its anchors and other configuration can be reused For this purpose three preliminary modifications are proposed i.e. 4-4, 6-4, and 8-4, each of the configuration is then calculated for their chain tension and restoring forces. iterative calculation is carried out using catenary equation with quasi static approach on horizontal and vertical load directions. The objective of this analysis is to obtain a new suitable configuration, anchor position and anchor type for the mooring leg arrangement.