PERFORMANCE EVALUATION OF KGM-23 CRANE BARGE
ON BOOM BURNER LIFTING AND INSTALLATION
OPERATION AT TOTAL E&P INDONESIÉ PECIKO FIELD
MWP-B PLATFORM

Name : Adelia Viviany.S
NRP : 4308 100 004
Department : Ocean Engineering FTK – ITS
Supervisors : Ir. Imam Rochani, M.Sc.
Dr. Ir. Wisnu Wardhana, SE, M.Sc.

Abstract

Crane barge, a ship that can also be called a pontoon, is used to support the drilling work of oil and gas, such as dredging, lifting, protection pile removal, pin connector installation, and boom burner installation. In this final project dynamic and static analyses are conducted using MOSES software, in order to obtain the maximum standard-allowable wave height based on three conditions: 10% consumables, 50% consumables and 100% consumables. The resulting stability of the crane barge for each condition shows good stability correspond to the specified criteria. For the maximum motions produced that meet the standards Total E&P IndonesiÉ Lifting Operation in conditions of 10% consumables, namely for 0° and 180° heading the allowable wave height is 1.53 m, for 45°, 135°, 225° and 315° heading the allowable wave height is 1.37 m, and for 90° and 270° heading the allowable wave height is 0.83 m. As for the maximum motions in the condition of 50% consumables, the allowable wave height for 0° and 180° heading is 1.62 m, the allowable wave height for 45°, 135°, 225°, and 315° heading is 1.40 m, and the allowable wave height for 90° and 270° heading is 0.90 m. Motions obtained for roll and pitch can be said to be safe on the wave heights obtained for each direction and condition, because the motions statistics still meet the specified standards, so the boom burner lifting and installation operation on Peciko Field MWP-B Platform can be executed properly.

Keywords: boom burner, crane barge, lifting operation, platform