Abstract

OPV 80m vessel is designed as a multipurpose ship, for an unlimited duty patrol functions in the country and to protect marine areas. Ship was modified by the addition of Helipad. This is necessary due to helideck minimum requirement is 4 meters from draft to main deck. While the distance from draft to maindeck in OPV only 3 meters. If maindeck modified to 4 meters, it will raise the position of Rescue Zone. In planning Helipad to note that the helicopter type, environmental conditions, and the signs are designed for visual pilots. By considering the construction of the designed and calculated the corresponding strength of construction. In this thesis, the analysis carried out by FEM (Finite Element Method) and manual calculations to determine the response to the imposition of a design. The Helipad wide is 12,6 m and loading capacity is 42.86 kN. The size of the planned construction HP80x6 profile, Girder T = 150x100x8,, Y Ø70x5 and the main pillar Ø130x5, and 8 mm thick plate. Analysis of the results of the planned construction has met. The maximum voltage on the helipad structure is 65.5 N / mm².

Keywords: Helipad, Helicopter, FEM