# *"ANALYSIS OF BARGE BOW STRENGTH AGAINST ADDED CONSTRUCTION"*


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## *ABSTRACT*


*In the current era of globalization, transportation is a very important part in the development of a country or region, the problem that often occurs at this time is that the bow of the ship at its base will often collide when it will lean into the port (jeti), when the impact occurs over time the bow and the inside will not be able to withstand the impact which will cause dents or deformation. The purpose of adding this construction is to increase the strength of the bow of the barge because the bow is often docked to the jeti (dock) and is easily deformed. The purpose of the author in this case uses a solution using the Ansys application. ANSYS is one of the software used to analyze various kinds of structures, fluid flow, and heat transfer from several other analysis software, namely Nastran, Catia, Fluent, and others. The stages of solving the problem to get the stress and strain distribution on the bow due to static loads using the finite element method (FEM) are considered symmetrical in shape and loading so that the modeling is made ¼ part).ANSYS is a product of the ANSYS Inc. company, ANSYS is a product of ANSYS Inc. which is used for Simulation and Engineering Design of 3D products. the result of this study is the impact force due to collisions received by the ship of = 8.528 tons.*



***Keywords:*** *barge (Roll on Roll Of), Collision, Safety Factor, Allowable Stres*