

DESIGN AND FABRICATE OF BARNACLE REMOVER MACHINE WITH WIRE BRUSH AND SCRAPPER

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" I declared that this is the result of my own work except the ideas and summaries which I clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any degree."

Signed : 24/5/2010

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ABSTRACT

Corrosion is one of the failures that must be considered in any engineering design. Micro organism is one of the factors that will cause the corrosion failure. One of the micro organisms that usually found is barnacles. The water control gate system owned by the Department of Irrigation and Drainage was affected by the barnacles when they congregate at the wall of water control gate. Clean and repair the system is very costly. So this project is to modify the existing product or existing design device to clean and barnacles from congregate at the wall of the water gate. Previously, there were two existing design which is designed by the previous mechanical students. This designed consist both mechanical system and electrical system. The sprocket and chain is used to roll up and roll down the layer's shaft while rotate the wire brush and an electric motor is used to operate the device. Beside wire brush, the design also consist a scrapper and a layer to protect the wall of water gate from barnacles. This project is required to design and analyze by using CATIA V5 software and fabrication of the model of 'Barnacle Remover Machine' is required to show how the system works. The analysis result from the CATIA V5 will be compared with the manual calculation.

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