ABSTRACT

The invention of new piling machine which often used in Indonesia is named Hydraulic Static Pile Driver and this machine is commonly known as HSPD. All manufactures and experts in HSPD piling stated that the result of piling using this machine does not cause negative impacts which often occur in the piling using other piling machines therefore the outcome will be more effective. The statement above becomes the based reason to have a research in the effectiveness of the piling machine which includes the length of working period, the costs of the project, and the quality of piling using HSPD. The research on the length of working period and the costs of the project will be examined using regression analysis methodology to find out the relationship between the piling factors and the costs of the project, followed by a comparison chart methodology from the significant factors of HSPD and Diesel Hammer. In order to find the effectiveness of piling from the quality perspective, the research will be attempted using passive observation methodology, and comparison of the questionnaire results between HSPD and diesel hammer. Outcomes obtained from the research indicate that the HSPD has good effectiveness in terms of the working period length and quality of work. However it is less effective in terms of project costs when compared to the project costs of diesel hammer.

Keyword: piling, Hydraulic Static Pile Driver, HSPD, effectiveness, the length of working period ,the project costs, the quality of piling.