Crane Design (Portable Crane)With a Maximum Lifting Capacity of 300 Kilograms Using a Hydraulic System

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ABSTRACT

Crane is a lifting and moving material that works with the principle of rope work, cranes are used to lift loads vertically and move horizontally to move together and lower loads to a predetermined place. One type of crane is portable crane. Portable Crane is a tool to lift or move cargo from its original place to the desired place. The meaning of the word portable is easy to carry anywhere and can be disassembled. The lifting capacity of this portable crane is different from other types of cranes because this tool is devoted to lifting or moving objects such as diesel, generators, engines and so on. For this research, the theme is Design and Build, which means making a portable crane from the beginning of designing it to being a ready-to-use tool. The capacity that has been determined to make this portable crane is 300 Kg using a hydraulic system. Hydraulic long ram is the main system in this portable crane, hydraulic long ram is still manual or still uses human power. The purpose of this research is for learning media for mechanical engineering students and also as a reference for conducting further research.

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