DESIGN & FABRICATION OF PEDAL POWERED WASHING MACHINE

A Thesis

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DECLARATION

We, hereby, declare that the work presented in this project is the outcome of the investigation and research work performed by us under the supervision of **Hasan Tareq Mahin**, Lecturer, Department of Mechanical Engineering, Sonargaon University (SU). We also declare that no part of this project and thesis has been or is being submitted elsewhere for the award of any degree

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In my capacity as supervisor of the candidate's project, I certify that the above statements are true to the best of my knowledge.

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ABSTRACT

The main objective of this is to design and for the fabrication of pedal operated washing machine. It is a machine which is used to wash clothes without consuming electrical energy. The main need of pedal operated washing machine is to provide a product with an alternative way to wash clothes where there is no proper electricity facility. The components which are used for pedal powered washing machine is readily available in market with low cost and requires less maintenance. The components used in pedal powered washing machine are outer drum (made up of GI sheet), inner drum (made up of SS sheet with small equally spaced holes throughout the surface), shaft (SS rod), frame (made up of MS angular bar), bearings, pedal arrangement, chain and sprocket setup, seat. Internally Designed a pedal operated washing machine in CAD and carried by fabrication and the assembly of components by performing various mechanical operation I.e., rolling, shearing, drilling, cutting, grinding, welding operation and finally inspected the working of the product. Rolling operation is performed on sheets for fabricating outer drum and inner drum. Cutting operation is performed for removing excess material. Welding operation is performed for joining various components together for obtaining final product. Whenever a load is applied on the pedal the energy will be transmitted towards the drum shaft and inner drum (where washing clothes are placed) then it will rotate. The product which is pedal driven machine will satisfy the need of rural people. The pedal powered washing machine satisfies the rural people needs by providing alternative way of washing clothes.

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