## **ABSTRACT**

## DESIGN OF PELLET MAKING MACHINE

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Design purposes pellet making machine that is to get the design of the machine, get working drawings of construction machinery, engineering analysis of data obtained on the engine transmission components. Besides, to determine the results of the cost calculation of pellet making machine products.

This engine design method refers to the concept of Pahl and Beitz design by several stages, including planning and explanation of tasks, planning of product concept, giving shape to the product, to produce detailed design document creation products (working drawings). Steps taken in the drafting process of this pellet making machine was with the calculation of force that occurred in the engine, the motor power required, the choice of transmission, to determine the material components required.

The results of the design is the design and working drawings making machine pellet product with a source of AC electric drive motor 0.25 HP. Diameter shaft that is used and 31.75 mm 25.4 mm of ST-60 materials. This pellet making machine has a robust construction and ergonomic with a 750 engine specifications length  $550 \times \text{width} \times \text{height } 890 \text{ mm}$ . Estimated selling prices offered by the machine, which is worth Rp 3,100,000.00.

Key words: Design of pellet making machine.