DESIGN BUILD CASSAVA CUTTING MACHINE USING SIX HOPPER BY CUTTING TRANSLATION OF MOTION METHOD GASOLINE MOTOR DRIVE

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Abstract

Most cassava chip home industry still use manual cutting process. So it takes a lot of time and effort in the process of cutting. One alternative to increase efficiency and productivity is to make the machine cut with a large cut capacity.

Therefore, to overcome this problem is to design a cassava cutting tool with a large cutting capacity. That is by using a six-blade cutter. Then plan and calculate the force on the component elements of the machine, the amount of power the motor is used, and the amount of capacity that is generated by the cutting machine. After build machine, calculate the magnitude of cutting force contained in cassava (from experiment) and be tested on the actual capacity that can be generated by the cutting machine.

The results obtained from the planning and calculation, machine cut using a power of 0.66 hp, 180 rpm rotation and six hoppers can produce cutting capacity 103.68 kg/hour which is equivalent to 103.68 kg/hour.

Keyword : Cassava, Hopper, Cassava cutting tools