

Design of Bulrush Chopper Machine

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ABSTRACT

The final project is aimed to: (1) make the engine chopper bulrush, (2) to the design of bulrush chopper machine that is efficient, (3) to determine the level of safety in the construction of bulrush chopper machine.

Bulrush chopper engine design has several concepts with several steps, among others, needs, project definition, project and preparation of technical specifications of products, product concept planning, design documents for the manufacture of the product until the product. The next step is to analyze the needs, taking into consideration the planning, demand planning and attention as well.

The results of bulrush chopper engine design implemented, namely: (1) bulrush chopper engine uses a single-blade cutting system that cuts grass at regular intervals, the system cuts the engine requires a basis for including the cutting system is slow; capacity of this machine is capable of achieving 134 kg/hours; the size of the engine length of 600 mm, width 400 mm, height 800 mm, using a driving force in the form of ¼ HP electric motor; order machine using steel L profile with size 40 x 40 x 3 mm; shaft of machines using materials St 37 with diameter 17 mm; system transmission using pulleys 14 "and 2" with a v-belt type A-58, (2) the security level of the construction machine according to some analysis from the shaft, the engine frame to the transmission system can be classified as fairly good.

Key words: design, engine chopper bulrush.