ABSTRACT

DESIGN AND BUILT OF POTATOES HARVESTING MACHINE
SCREENER AND POWER TRANSMISION SYSTEM

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Potatoes, a potential agricultural commodities to be developed in Indonesia. When the harvest come, people still use a very simple method for harvesting potatoes by using hoes. The farmers complaining for the need of so much work forces for harvesting while the labor cost are getting increased and he time spent for harvesting process are too long. Even is an alternative of an imported potatoes harvesting machine, but those machines are not compatible with the farming environment in Indonesia which have a small and sectional area for farming.

The designed machine is a potatoes harvesting machine that would be used for farming condition in Indonesia. This machine have three main part, that are potatoes scrapper to scrap potatoes from the soil, potatoes conveyor and screener. This project focusing designing and building process of the screener and power transmission. The screener would separated potatoes and soil use a translation motion. This screener also use for collectible part. And to make run this machine need some powertransmision system from the engine.

And this project resulting a machine that can separate potatoes from the soil with model like screener. And also to make run this machine need some gasoline engine with 5 horsepower and rotation speed is 1200 rpm. Keywords: farming environment, screener, and power transmision system.