

Pengembangan Mesin Gergaji Bolak Balik Merk Great Captain 1978 Dengan Material Lokal Untuk Mendukung Proses Pembelajaran Di Bengkel Fabrikasi JPTM FT UNY

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ABSTRACT

Great Captain Machine made in 1978 which serves to cut welding practice material in damaged state and machine components on missing while body machine and adjustable frame saws are still good. The purpose of this research was to optimize the appropriate technology of defective sawing machine to be re-functioned by using the components and local materials that can easily and cheaply.

The research steps to make the design of machine components and done in machining workshop and fabrikaasi. After the trial is done to cut the iron plate and assess the performance of the machine, with parameters include; strip size and cut shape. The Results of optimization the saw machine can be functioned as before. The piece of workpiece shows the performance of the machine both with the size of the pieces as needed with the ability to cut the material width of 160 mm and diameter 75 mm, straight cut shape with a step length of 140 mm and the speed of chainsaw 100 (stroke / mnt) with cutting speed 43.96 (m / mnt)). With the proper functioning of saw machine the need for fabricated strip fabrication and construction materials can be fulfilled.

Kata Kunci: *Modification, Local Materials, Appropriate Technology, Sawing Machine*