

## **ABSTRACT**

### **THE MAKING OF THE TRANSMISSION SHAFT PROCESS ON SOYBEAN EPIDERMIS PARER MACHINE**

by:

Achbar Prayitno  
06508131037

Transmission shaft is one of the supporting components of soybean epidermis parer machine. The purpose of this Final Project report is to know the process of manufacture and tools that are use in the process making the transmission shaft. Beside that, it also used to know the total of the time and the cost needed in the manufacturing process.

The method used in the process of making soybean epidermis parer machine begins with the identification of working drawings, the identification of the materials, the identification of the tools used, the cutting materials, the turning, the milling, and the assembly. Materials to make the transmission shaft is steel ST 60 sizes  $\text{Ø}25$ , 4 x 300 mm. Equipments are used for the manufacturing process transmission shaft such us saws, lathes, milling machine, HSS cutting tool, end mill, vernier caliper, steel ruler, high gauge, center drill, and safety equipments.

Based on the results of the soybean epidermis parer machine testing that has been done, the transmission shaft is made with size of  $\text{Ø}19,05$  x 280 mm can work according to the function is as pulleys placed and connection to power an electric motor to the roller. Transmission shaft that has been made occurs tapered at the end, shaft rotation is not good and does not balance. The dimensional deviations occurred at one end of the shaft of 0.52%. Soybean epidermis parer machine is able to peel with a volume capacity of 4 kg / minute in a single process, with a percentage of peeling 20%. To get the maximum peeling process performed 5 times. The cost of making the transmission shaft is 92,400 rupiah. The whole process of making the transmission shaft based on direct measurements in the field takes 160 minutes.