

ABSTRACT

Bench leg is a kind of leg that can be found on a piano (Clavinova) made from rubber wood. The processes of bench leg production can be done in several processes. One of the processes is wrapping. Wrapping is a process of covering the outer surface of the bench leg with PVC. The surface must be clean and free from any form of dust and dirt. The remaining dust from the sanding process which is stuck on the bench leg surface should be cleaned, in order to cover the outer surface of the bench leg with PVC perfectly. Nowadays, the process of bench leg cleaning at YMMA Company is done manually by the operators.

The manual method in bench leg cleaning is not really effective to be applied for massive production; therefore, this process needs to be changed with automatic dust cleaner machine. A research, plan, and choice of the appropriate components need to be done because of the replacement method, from manual method into automatic method. The research data are obtained from field observation, literary study, interview, and design production according to field condition.

Dust cleaner machine for bench leg has been designed and tried for wood working workshop area of YMMA Company; it is able to increase the effectiveness and productivity of bench leg unit and to decrease the use of man power.

Keywords: bench leg, dust cleaner, man power.

INTISARI

Bench leg adalah kaki kursi piano/Clavinova yang terbuat dari material kayu karet. Proses produksi *bench leg* melalui beberapa proses, salah satunya adalah proses *wrapping*. *Wrapping* yaitu proses pemberian lapisan PVC pada permukaan luar *bench leg*. Permukaan yang akan diberi lapisan PVC harus bersih dari debu dan kotoran dalam bentuk apapun. Debu sisa proses *sanding* yang menempel pada permukaan *bench leg* perlu dibersihkan agar PVC dapat menempel sempurna. Saat ini proses pembersihan *bench leg* di PT YMMA dilakukan secara manual oleh operator.

Metode manual dalam pembersihan *bench leg* kurang efektif diterapkan pada produksi masal, untuk itu perlu diganti menggunakan mesin pembersih debu otomatis (*dust cleaner*). Penggantian metode menjadi otomatis perlu dilakukan penelitian, perancangan, dan pemilihan komponen yang sesuai. Data yang dibutuhkan dalam penelitian diperoleh melalui observasi lapangan, studi literatur, *interview*, serta pembuatan desain yang disesuaikan dengan kondisi di lapangan.

Mesin pembersih debu untuk produk *bench leg* (*dust cleaner*) yang telah dirancang dan dilakukan *trial* pada area *workshop wood working* PT YMMA mampu meningkatkan efektifitas dan produktifitas unit *bench leg* dengan mengurangi penggunaan *man power*.