

 $\label{eq:continuous} Volume \ 5 \ | \ Issue \ 1\&2 \ | \ Apr. \& \ Oct., \ 2014 \ | \ 15-21$ e \ ISSN-2230-9284 \ | \ Visit us : \ www.researchjournal.co.in

ARTICLE CHRONICLE :

Received : 07.08.2014;

Revised : 24.08.2014;

Accepted : 15.09.2014;

RESEARCH PAPER

Performance evaluation of bamboo sliver making machine

DOI: 10.15740/HAS/ETI/5.1and2/15-21

■ S.P. KURHEKAR AND N.S. SHINDE

ABSTRACT

The bamboo sliver making machine is electrically operated by a 3-phase, A.C induction motor. The readings were taken at no load condition and at load conditions for fresh as well as dry bamboo of different varieties. The power required at no load condition was 2.23 kW. At load condition for freshly cut bamboo energy consumed was 3.10 kW. Similarly, for dry bamboo energy consumption was 2.43 kW. The capacity for freshly cut bamboo was found to be 36 slivers per minute. Similarly, the capacity of machine for dry cut bamboo was found to be 42 slivers per minute. The cutting efficiency for freshly cut bamboo was found to be 76.19 % similarly, for the cutting efficiency for dry cut bamboo was found to be 77.82 %. The cutting efficiency increases with decrease in moisture content. The percentage damaged for freshly cut bamboo was found to be 23.79 %. Similarly, the percentage damaged for dry cut bamboo was found to be 24.05%. The percentage damage decreases with increase in moisture content.

KEY WORDS: Bamboo sliver, Moisture content, Efficiency

How to cite this Article: Kurhekar, S.P. and Shinde, N.S. (2014). Performance evaluation of bamboo sliver making machine. *Engg. & Tech. in India*, **5** (1&2): 15-21.