WEAR PATTERN OF VARIOUS ROUTER BIT MATERIAL IN CUTTING RUBBERWOOD MEDIUM DENSITY FIBREBOARD

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Thesis Submitted in Partial Fulfillment of Requirement for the Degree of Bachelor of Science in Furniture Technology in the Faculty of Applied Science, Universiti Teknologi MARA.

ACKNOWLEDGEMENT

Alhamdulillah, all praise to Allah for His blessing in giving the writter ideas, strength and patience in completing this dissertation. It is the most demanding and challenging subject for the B. Sc. (HONS) Furniture Technology course.

The writter sincere thanks and gratitude are extended to En. Roslan Ali (Tutor Course of the Department of Furniture Technology), the writter's versatile advisor of this Thesis, for his consistent support, encouragement and understanding in finishing this task. Without his help, the writter is hopeless like a blind person and helpless without his guidance.

A very sincere thanks to Dr. Jamaludin B. Kasim (Lecturer of Furniture Department), Dr. Rosnani (Dentist), En. Mohd. Nor Juraimi and En. Azli Munjat (Furniture Technology Lab Assistant), En. Syawal Ibrahim (Mechanical Engineering Lab Assistant) and to all the staff the writter have not mention here.

Very special thanks to all the writter's fellow classmates and especially to other members for their moral support, comments and suggestions in completing this Thesis.

Last but not least, the writter greatest thanks to his parents who believe in him, in giving him moral support in undertaking the pressure and a lot of sacrifices, prayers, encouragement, tears and the greatest undying love.

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October 1999

In order to study the wear pattern of various router bit material in cutting Rubberwood Medium Density Fibreboard (MDF), two kinds of router bit material (High Speed Steel and Tungsten Carbide Tipped) were employed in cutting Rubberwood MDF. The TCT showed the longest working life (twice the cutting distance compared to the HSS), while the HSS retained its usefulness for only a short distance of cutting. In the testing, using the Tungsten tipped and the Steel tipped, it was also confirmed that the Steel tipped wore more than the Tungsten tipped. From the observation of the worn tips it was found that the most useful in cutting Rubberwood MDF is the TCT, although for the HSS is best suitable for cutting solid wood as for the finish surface is more smooth if the HSS is to be sharped by honing it. There are many constraining in this testing as the wear mechanism and the wearing processes of those router bit materials are discussed.