DESIGN AND FABRICATION OF KEY DUPLICATION MACHINE

BY

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF ENGINEERING (B.Eng) DEGREE IN MECHANICAL ENGINEERING, SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA NIGERIA

NOVEMBER, 2010
DECLARATION

I hereby declare that this project work titled, **DESIGN AND FABRICATION OF A KEY DUPLICATING MACHINE**, has not been presented wholly or in part for the award of any degree anywhere. Information derived from personal communication, published and unpublished works of other persons have been duly acknowledge in this thesis.

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CERTIFICATION

This project titled, DESIGN AND FABRICATION OF A KEY DUPLICATING MACHINE, carried out by OYIBOCHA CYRIL EMUOBO has been read and approved having met the requirement for the award of Bachelor of Engineering (B.ENG) degree in Mechanical Engineering of the Federal University of Technology, Minna.

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DEDICATION

This thesis is dedicated to God Almighty the giver of life and knowledge, my parent’s Mr. and Mrs. G. O Oyibocha, All Less Privilege and my available supervisor, Mr. O. J. Okegbile.
ACKNOWLEDGMENT

I wish to express my profound gratitude to God almighty for seeing me through this phase of my educational pursuit, without him life would have been miserable. To my project supervisor, Mr. O. J. Okegbile, may God bless and reward you for your guidance and constructive criticisms geared towards the success of this project work. My Head of Department, Prof. R. H. Khan, level adviser Dr. I. C. Ugwoke, Engr. S. N. Mohammed and my project co-ordinators Engr. J. A. Onuoah and Engr. J. Folaranmi may God bless you abundantly.

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ABSTRACT

The advancement in technology that has taken place in the design of key duplicating machine together with a review for redesign of some basic components for easy operation has led to this project work. Unlike the other types that has been in existence, this machine presented here is electrically powered by 440 watt AC motor. It consist of (cutter blade, frame, top plate, AC motor, tracer or profile follower, tightening knob and handle) it has advantage over the manual type of key duplicating machine. From the standpoint of power required for operation, it also has a higher speed. This key duplicating machine like others is portable and durable with every part specified to satisfy the desired aim and output, it is also easy to operate and maintain. Meanwhile the frame or base of the machine is made of “mild-steel”. It is a good vibration damper and therefore it reduces shock during loading and absorbs vibration during operation.
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