A TECHNICAL REPORT

ON

STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME

(SIWES)

HELD AT

BIDO ENGINEERING GLOBAL CONCEPT
OPP. OLODO AREA AIRPORT ROAD, ILORIN Kwara STATE

By:

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I also went to thank my supervisor, DR. AGUNBIADE .G. was sent from school to check on me and for the advice and correction he put me through.

CHAPTER ONE

1.0 INTRODUCTION

SIWES programme, this was established in year 1973 by the Federal Government of Nigeria through the Industrial Training Fund (ITF) under the NBTE and it has its headquarters in Jos, Plateau state. There are different reasons behind the establishment of SIWES programe, but the major reason and the importance was for students to display their talents and also learn the practical aspect of their field of study so that after their graduation, they will have something valuable to contribute to the society and be able to face the future challenges in their respective field of study.

1.1 SIWES DEFINITION

SIWES simply means a programme that is meant for student in tertiary institution. SIWES denotes student industrial work experience scheme. It could be define as a course by which students are exposed to practical training in their respective field of study.

SIWES is the acceptable skill training programme set up as the requirement for the award of National diploma (ND) certificate for student studying engineering and applied science. It is also set up for students in school of engineering, college of education, environmental studies, science and technology.

Its effort is to bridge the gap existing between theory and practical aspect of engineering and some applied sciences.

1.2 AIMS AND OBJECTIVES OF SIWES

The aims and objective of student industrial working experience scheme (siwes) are as follows.

1. It enables students to discover and display their talent
2. To improve the technological development of the country
3. It makes student to find their interest in the various fields of study
4. it enable student to be able to handle equipment or tools related to their course of study
5. it also exposes students to industrial based skills necessary for a smooth transition from the classroom to the world of their respective field work

it increase knowledge on the practical aspect of the course, they study.

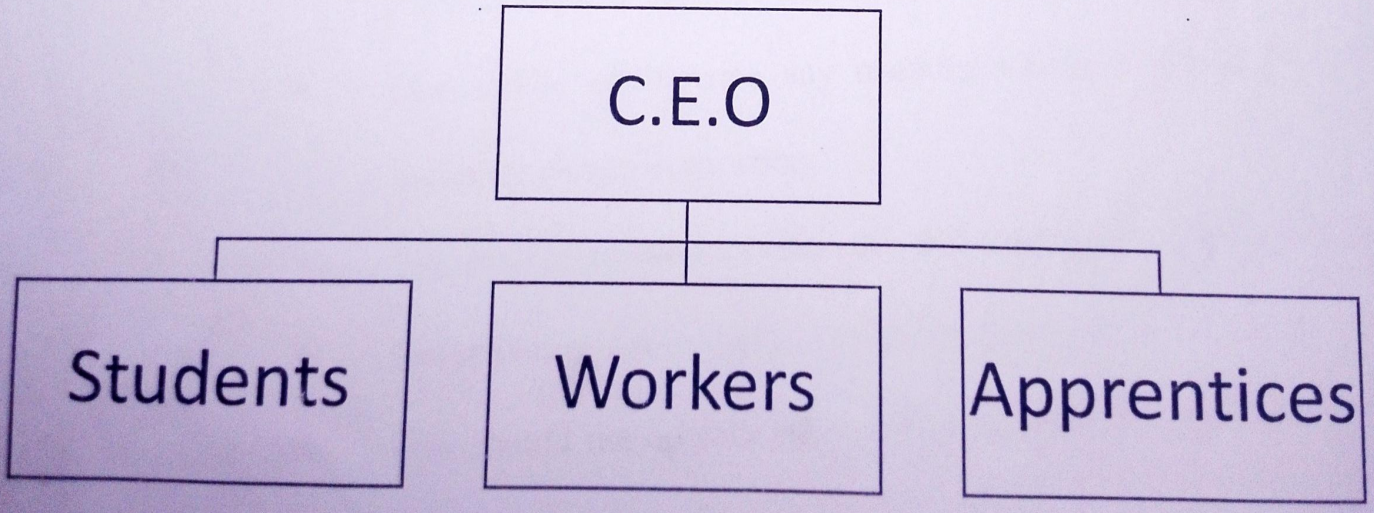
CHAPTER TWO

2.0 BRIEF HISTORY OF THE ORGANIZATION

BIDO ENGINEERING GLOBAL CONCEPT was established in year 2016 and it is compose of the Highly Technical.

The Chairman of the company has experience in welding fabrication and design in all kinds because he has experience when working in some company. He has been a Technician engineer since year 2008. He has many apprentice under his company he trained many SIWES students the company has done many fabricating and fitting work with difference company and customers and many more.

2.1 ORGANIZATION STRUCTURE



CHAPTER THREE

3.0 WORK DONE

3.1 SAFETY

The term SAFETY simply means the state of being safe. Safety is the freedom from the occurrence of risk of injury, danger or loss.

The safety procedures in the organization are listed below:

3.2 GENERAL SAFETY PRECAUTIONS WHILE WORKING IN WORKSHOP

* One should not leave the machine on even after the power is OFF and until it has stopped running completely. Someone else may not notice that the machine is still in motion and be injured.
* One should not oil, clean, adjust or repair any machine while it is till running, stop the machine and lock the power switch in thee OFF position.
* One should not operate any machine unless authorize to do so by the authorize person in the shop.
* The door should be kept clean of meal ships or curls and waste pieces
* Defectives guards must be repaired immediately
* One should not operate any machinery when the supervisor or instructor is not there

* All set screw should be of flush or recessed type. Projecting set screws are very dangerous because they catch on sleeves or clothing
* One should not try to stop the machine with hands or body
* Only trained operator should operate machine or switches as far as possible.
* Keep the work area clean
* Always work in proper lighting
* One should not lean against the machine

3.3 ENGINEERING SAFETY

When any engineering machine is to be worked it must be completely safe and well maintained.

3.3.1 ENGINEERING SAFETY MEASURE

* Always ensure that your workshop environment is always tidy
* Use of insulation electrical tools, especially while on high voltage to prevent hazard
* Ensure that supply is completely denoted before carrying out extension service or correction exercise on the existing installation of a premise
* No untrained person should be allow to repair electrical faults.

3.4 WELDING WORKSHOP

This workshop was equipped with welding machine, cutting machine ect.

3.6 MEASURING AND MARKETING OUT TOOLS

Accurate measuring and marking out is first step in the process of metal work. The instrument for measuring include

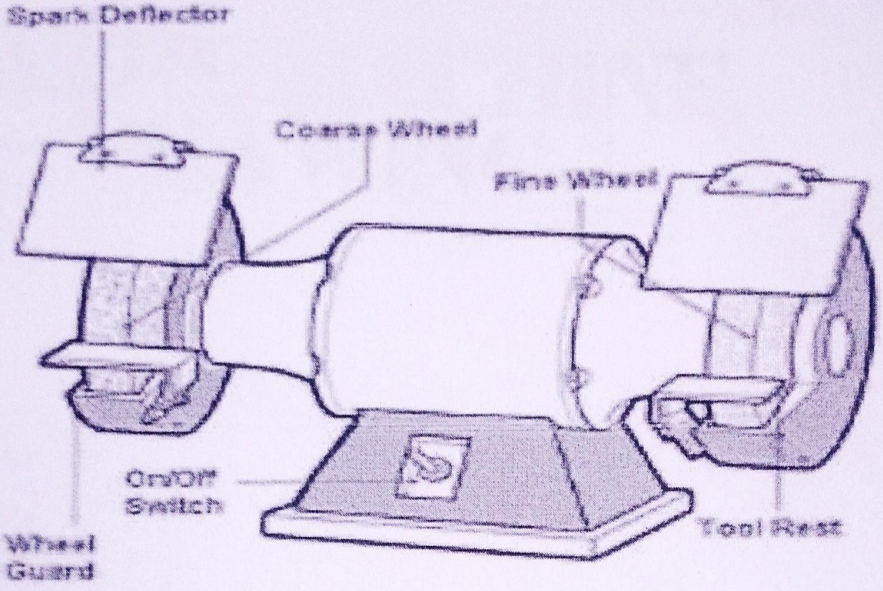
- Steel rule
- Steel tape
- Vernier caliper
- Micrometer gauge
- Feeler gauge
- Dial indicator gauge
- Vernier height gauge
- Vernier protractor
- Engineer's bevel
- Spirit level
- Screw pitch gauge

3.7 DIRECT AND INDIRECT MEASURING

Direct measuring tools are those that direct reading scale. Example these are steel rule. Steel tape and vernier caliper. Indirect measuring tools are that will have to be taken to scale rule for interpretation of their measurement. Example of these include internal caliper, spirit level and engineer's bevel

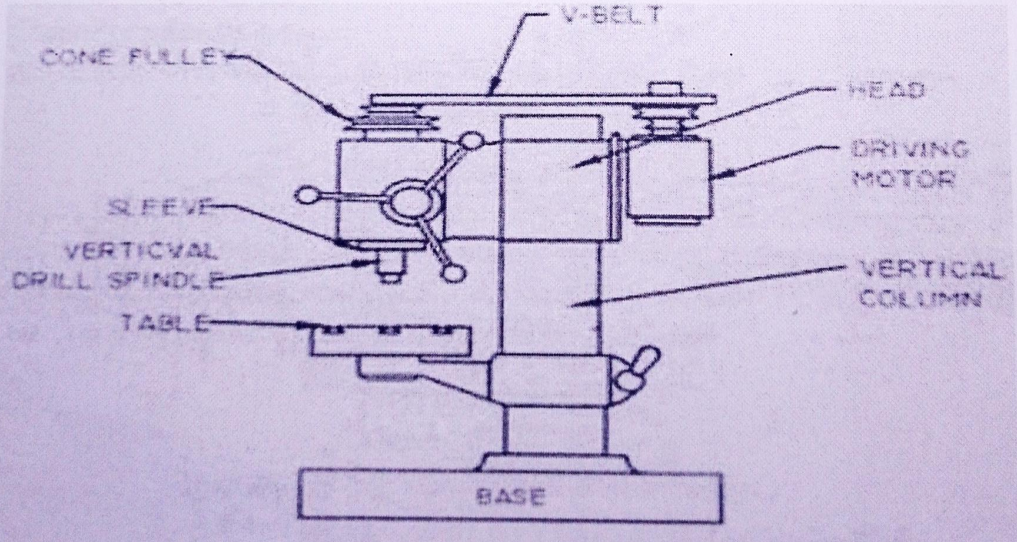
CHAPTER FIVE

5.0 APPENDICES



Bench Grinder

Fig. 1



Sensitive Drilling Machine

Fig. 2

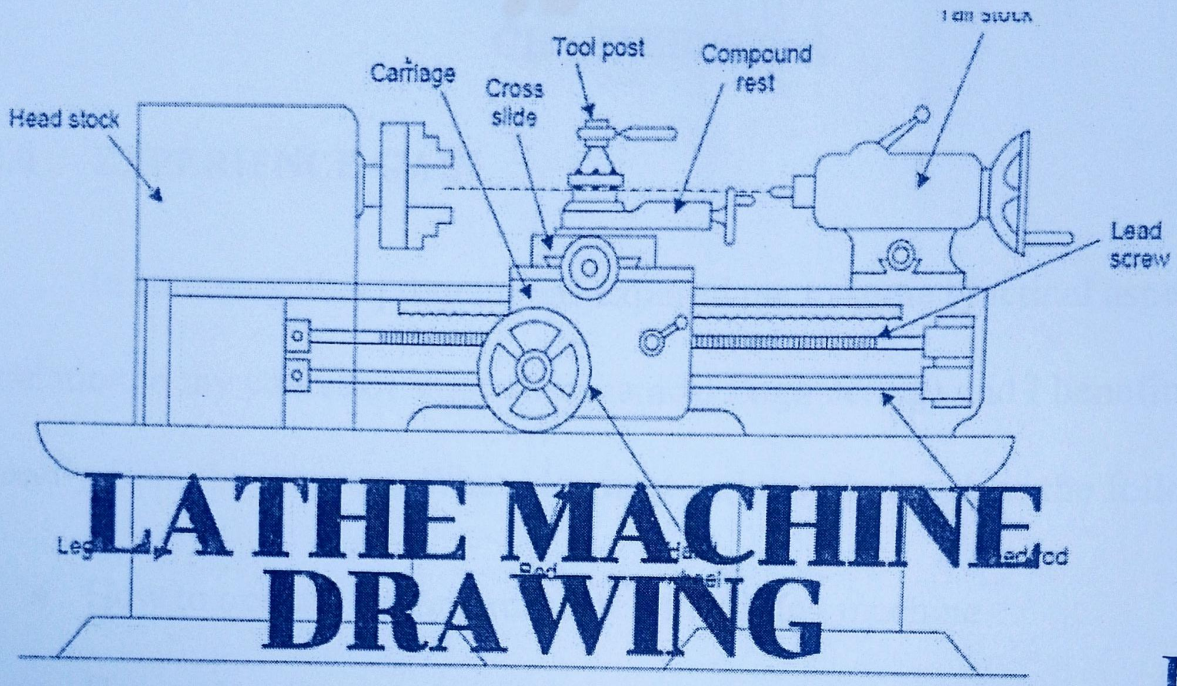

Tool post
Compound rest
Carriage
Cross slide
Head stock
Lead screw
LATHE MACHINE DRAWING

Fig. 3

CHAPTER ~~FOUR~~ FIVE

4.0 EXPERIENCE GAIN

In summary, this program has exposed me to some practical aspect in rnelation to my course of study (Mechanical Engineering) and I benefitted greatly from the program. What I learnt at various site involves the following:

- How to operate Griding machine and drilling machine
- How to handle an arch welding machine
- How to construct two hand poles
- How to repair a drilling machine and changing of the spare part
- Identification and uses of tools in welding work shop for students
- How to take accurate measurement before fabrication or welding
- How to safety and precaution is important when welding or fabricating
- How to weld and fabricate metal.
- How to operate a lathe machine
- How to perform a task on a shaping machine
- How to groove a pulley on a lathe machine

CHAPTER ~~FIVE~~ SIX

5.0 CONCLUSION

In conclusion, the student industrial work experience scheme (SIWES) is a program that help student acquire more experience that will make ~~them~~ help in engineering field in the future. It helps support the theoretical learning gained in the school environment make student see the reality about engineering and give them opportunity to begin to actualizing their dream by working in different field and being prepared for the outside world.

5.1 SUGGESTION

I suggest that the institute supervisors should visit each of the students to ensure that the student's attend the SIWES program, and penalize who ever refuse to attendant it.

Moreover, the government should make funds available and ready for private investors who wish to go into different aspect of mechanical engineering. The federal government should keep on supporting this program and never relent in it.

3.12 DRILLING MACHINES

Drilling is one of the important and widely used machine operations and a wide range of machines are manufactured for its performance. Drilling is the process of creating a hole in a work piece, or simply a process of originating a hole in a component.

3.1.2 TYPES OF DRILLING MACHINE

a. Pillar or vertical drilling machine

b. Radial drilling machine

c. Sensitive drilling Machine