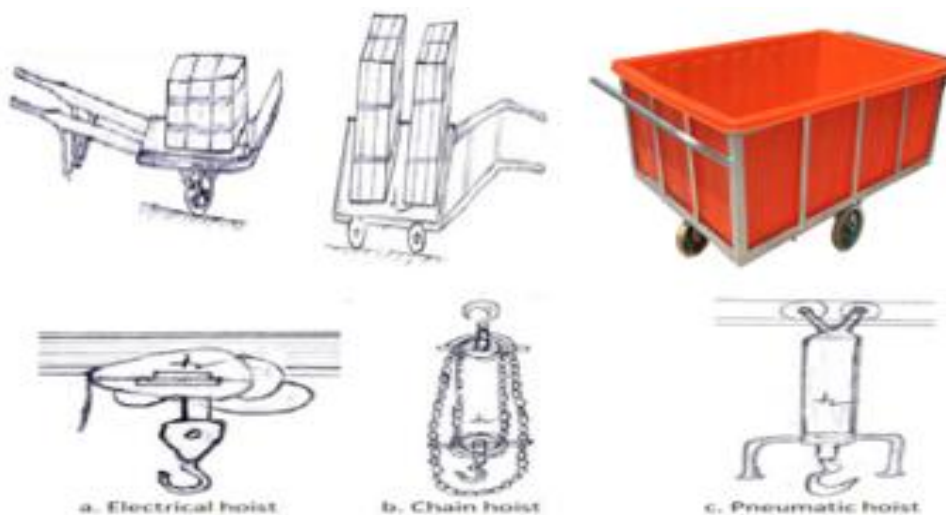


# Ginning and Spinning Operation

## Level – I

Based on March, 2022 Curriculum version I



**Module Title: - Operating and use load shifting equipment and power tools**

**Module code: IND GSOT1 M04 0322**

**Nominal duration: 35Hour**

**Prepared by: Ministry of Labour and Skill**

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**Addis Ababa, Ethiopia**

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## Acknowledgement

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## Acronym

**LAP:** learning activity performance

**OHS:** occupational health and safety

**PPE:** personal protective equipment

**SOP:** standard operating procedure

**WHS:** work health and safety

## Introduction to the Module

Load shifting in equipment that used for push or pull and up or down and move heavy load materials from one place to another place and also power tools are used for alignment, shaping, drilling and combining of objects.

### This module covers the units:

- job requirements
- checkup of equipment
- load shifting equipment
- power tools
- Complete documentation

### Learning Objective of the Module

- Determine job requirements
- Perform pre-checkup of equipment
- Operate and monitor load shifting equipment
- Use power tools
- Complete documentation

### Module Instruction

For effective use this modules trainees are expected to follow the following module instruction:

1. Read the information written in each unit
2. Accomplish the Self-checks at the end of each unit
3. Perform Operation Sheets which were provided at the end of units
4. Do the “LAP test” giver at the end of each unit and
5. Read the identified reference book for Examples and exercise

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## Unit one: Determine job requirements

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Standard operating procedures (SOPs)
- Work health and safety (WHS) requirements
- Appropriate personal protective equipment (PPE)
- Identifying job requirements

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Follow standard operating procedures (sops)
- Comply with work health and safety (WHS) requirements at all times
- Use appropriate personal protective equipment (PPE) in accordance with sops
- Identify job requirements from specifications, drawing job sheets or work instructions.

## 1.1 Standard operating procedures (SOPs)

Standard operating procedures for tools and equipment are not only about following safety protocols. The safe operating procedures should be designed to minimise or eliminate hazards, such as injury or death to the user. Using hand and power tools in any work setting is dangerous, so it's essential for everyone who does use them to follow safe practices.

### 1.1.1. Standard Operating Procedures for Tools

Standard operating procedures for equipment will help you identify and implement safety procedures to protect employees from the hazards of hand and portable power tools and document compliance with regulatory requirements. Procedures are as follows:

- Responsibilities imposed by health and safety legislation require a person conducting a business or undertaking, such as an industry owner carrying out high-risk work, to prepare standard operating procedures that identify hazards and control risks with the operation of tools and equipment.
- With well documented standard operating procedures the performance of tasks at your business becomes much easier because all employees are running according to the same plan. This, in turn, leads to better consistency and productivity.

It is important to keep safety and health in mind when working with tools and equipment. The WHS team has created safe operating procedures to help you do that.

- This gives workers the necessary insight into the risks involved in using tools and staying safe when undertaking a task.

### 1.1.2. Elements of Standard Operating Procedures (SOP)

Elements of Standard Operating Procedures include:

- Work health and safety consultation with workers for input on hazards, risks and solutions.
- Pre-start inspection of tools used in a work task to ensure tool and equipment safety.

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- Methods by which to identify faulty, defective or non-compliant plant and equipment.
- The requirement to not alter or modify plant and equipment.
- Incompatible components or parts fitted to or used in connection with a tool.
- The method by which to safely operate the tool to eliminate the risk of injury or death.
- Environmental hazards in the workplace having the potential to be a hazard.
- Work at height hazards and control measures when operating a tool to undertake a work task.
- Hazardous manual tasks requiring the safe handling of tools and equipment
- Residual hazards resulting from the operation of tools requiring PPE as a control measure.
- Training provided to workers to explain safety measures in the use of tools and equipment.
- Good housekeeping practices in the workplace assists with slips, trips and falls prevention.
- Monitor and review control measures to ensure the health and safety of workers.

## 1.2 Work health and safety (WHS) requirements

Work health and safety (WHS): Sometimes called occupational health and safety (OH&S) involves the management of risks to the health and safety of everyone in workplace. This includes the health and safety of anyone who does work for workers as well as customers, visitors and suppliers.

### 1. 2.1 Benefits of Work health and safety

Creating a safe work environment is a legal requirement. It's also critical to the long term success of task/work:

- Help you keep your staff
- Improve staff productivity
- Reduce injury and illness in the workplace
- Reduce the costs of injury and workers' compensation.
- Improve moral for employee

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### 1.3 Appropriate personal protective equipment (PPE)

A Personal Protective Equipment (PPE) is clothing or equipment designed to reduce employee exposure to chemical, biological, and physical hazards when on the industry (work site). It is used to protect employee's hazard and illness/injuries and to reduce the risks to acceptable levels.

#### 1.3.1 Importance of Personal Protective Equipment

According to the hierarchy of controls by the National Institute for Occupational Safety and Health (NIOSH), PPE is recommended to be the last level of defence to prevent occupational injuries, illnesses, and fatalities, but some businesses combined it with other control measures to ensure a safe and healthy environment for their workers. Here are some benefits of using PPEs:

- Prevent unnecessary injury in the workplace;
- Protect employees from excessive chemical exposure;
- Help businesses comply with regulatory requirements
- Improve employee productivity and efficiency.



Fig 1 PPE

## 1.4 Identifying job requirements

Job requirements should include all the technical or “hard” skills needed to carry out job responsibilities, as well as any “soft” or interpersonal skills that are valuable to the role.

### Technical or ‘hard’ skills requirements

What technical skills are needed to succeed in this role? Which are you willing to train for? The skills and expertise that you can’t provide on-the-job training for should be listed in your job requirements. Omit skills that you are willing and able to teach from your job requirements. Otherwise, you may miss out on a truly great candidate almost a quarter of professionals won’t apply to a role if they don’t match the requirements.

### ‘Soft’ skills requirements

Interpersonal skills are arguably more important than hard skills it’s harder to teach or perform tasks. Communication skills are the number-one quality candidates on the job market lack.

### Common job requirements

Every position has different requirements, depending on the industry, how technical the work is and how competitive the job market is. Here are the most common types of job requirements you may see:

- Work experience
- Skills
- Education
- Professional licenses, accreditation and certifications
- Specific knowledge
- Personal traits and attributes
- Languages and physical ability

	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Key answer you're seen before of the references book

### **Part I. short answer**

Give short answer for the following questions

1. What are the most common types of job requirements list at least 6?
2. List at least four main benefits of PPE?
3. Define PPE?
4. List at least five benefits of WHS?

## Unit two: Perform pre-checkup of equipment

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Operating load shifting devices and power tools
- Undertaking routine pre-use checks
- Reporting non-compliance
- Performing routine maintenance

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Operate load shifting devices and power tools
- Determine routine pre-use checks
- Report non-compliance
- Perform routine maintenance

## 2.1 Operating load shifting devices and power tools

In order to perform the task we can operate appropriately. These are the terms used to operate load shifting equipment listed below:

- Read technical manuals to understand equipment and controls
- Disassemble machinery and equipment when there is a problem
- Repair or replace broken or malfunctioning components
- Perform tests and run initial batches to make sure that the machine is running smoothly
- Adjust and calibrate equipment and machinery to optimal specifications.

## 2.2 Undertaking routine pre-use checks

The most appropriate load shifting equipment is selected based on the types of work. Routine checks the equipment in accordance with manufacturer specifications & safety regulations. Safety regulations are regulations to avoid the risks & hazards that may result during the operations. The risk that may occur includes:

- The risk of load drop/fail on the operators
- Risks of body injury by rotating parts of the equipment & etc.

## 2.3 Reporting non-compliance

During the operation with load shifting equipment's, we use operation manual of the equipment. If there is non-compliance with this manual or preset specification, report to the concerned body for repair or replacement.

Safety is of utmost importance, and all employees have a duty to ensure the safety of themselves and others. In order to do so, you must have a sound understanding of health, safety, and risk management procedures as well as how they apply to the workplace and high risk work activities. High-risk work activities put workers in danger, so you need to implement control measures to reduce the risks they face. Risk management begins with the hierarchy of control, which are control measures for managing risk.

## 2.4 Performing routine maintenance

Maintenance is defined as a process in which working condition of plant or machinery is maintained at the optimum level as to give maximum output. Maintenance is done through repair, partial replacement and total replacement. Minor maintenance is the process of repairing damaged parts of load shifting equipment. E.g. Repairing/replacing broken handle of load shifting equipment.

Why cleaning the surface of load shifting equipment? Because the dusts occupied the surface of any machine deteriorate the surface of machine as a result the life span of the machine will be reduced. Following is the significance of the maintenance policy:

- Maintenance policy ensures that equipment's are always in ready and reliable condition. This ensures company is able respond to any sudden change in demand.
- Maintenance policy ensures that equipment's are always calibrated to provide good-quality products and competitive advantage. This ensures that there are no sudden and frequent breakdowns and reduce production of defective products.
- Maintenance policy ensures that there are no major breakdowns. This ensures there is no loss of inventory or market share for companies following JIT philosophy.
- Maintenance policy ensures that costs are always controlled.
- Maintenance policy is particularly important in capital-intensive industries.

If organizations are not able to implement an effective maintenance policy than it can result in the following results:

- Full capacity utilization may not be achieved.
- Increase in production cost as fixed labor cost cannot be reduced.
- Increase in maintenance cost as more spare parts are required.
- Reduction in product quality and increase in wastage.
- Safety of workers and operators in jeopardy.

### a) Maintenance Management

Maintenance management is process where available resources are regulated in a manner that plant and machinery can perform at specific levels. Maintenance management involves planning, scheduling and execution of maintenance-related activities. The main objectives of the maintenance management are as follows:

- Minimum level of production loss and minimum incidence of breakdown.
- Minimum level of wastage.
- Optimum usage of maintenance equipment and personnel.
- Quality of product is improved.

### b) Planning and Scheduling

The maintenance department is responsible with planning and scheduling of maintenance in line with the requirement and expectation of the organization. Planning and scheduling needs to ensure that business as usual is not disturbed.

The following are key points to plan maintenance:

- Identify the equipment for maintenance and technique for maintenance.
- Categorize maintenance into routine, priority and emergency.
- Plan maintenance considering cost, time, space etc
- Material planning for maintenance requirements.
- Budget time and money requirements.

The need to schedule maintenance can be best described as follows:

- To optimize usage of plant, machinery and tools.
- To optimize usage of manpower in maintenance.
- To ensure smooth production flow.

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<b>Self-Check 2</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Key answer you're seen before of the references book

### **Part I. short answer**

Give short answer for the following questions

1. What are the key tools to plan maintenance list at least 4?
2. List at least four main objectives if maintenance management?

## Operation Sheet-2

### **OPERATION TITLE: Perform pre-checkup of equipment**

**PURPOSE:** To train our trainee's about performed pre checkup of equipment by studying all steps and procedures.

### **CONDITIONS OR SITUATIONS FOR THE OPERATIONS:**

The operation process can be performed by following the procedure and steps.

### **EQUIPMENT TOOLS AND MATERIALS :**

To prepare for pre-checkup equipment's required are carts, overhead cranes and trolleys, front end loader/back hoe, ride and fork lift and pallet trucks workshop or store travelling cranes, chain blocks

### **PROCEDURE:**

- Apply OHS practices
- Select the equipment
- Pry check the equipment
- Maintains the equipment
- Adjust the equipment
- Clean the area and record and documentation

### **PRECAUTIONS:**

The operation can be performed by applying standard occupational health and safety rule.

### QUALITY CRITERIA:

The final appearance of pre-checked can be checked its quality by the trainers and trainees .If there is a quality problem checking again and if they completed the unit for the Perform cleaning in general production area pass to next unit.

<b>LAP Test 2</b>	<b>Practical Demonstration</b>
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**Instructions:** Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task 1: Check fork blades for wear

Task 2: Check for cracks in heel and hanger.

Task 3: Replace when, necessary, with good quality forks

## Unit three: Operate and monitor load shifting equipment

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Operating load shifting device
- Lifting load, ensuring balance, vision of operating and protecting of load
- Placing loads for ensuring safety and stability
- Safe and efficient path of movement
- Checking and monitoring path of movement for obstacles and hazards
- environmental requirements and procedures

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Operate load shifting device
- Lifting load, ensuring balance, vision of operating and protecting of load
- Place loads for ensuring safety and stability
- Select Safe and efficient path of movement
- Checking and monitoring path of movement for obstacles and hazards
- Apply environmental requirements and procedures

## 3.1 Operating load shifting device

### 3.1.2 Load shifting device

There are different types of load shifting equipment in spinning and ginning these are

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#### A. Carts

Cart is a strong open vehicle with two or four wheels typically used for carrying loads and pulled by a horse.



Figure 3.1 Cart

#### B. Overhead cranes

Overhead crane is a large machine that moves heavy things by lifting them in the air. They can handle heavy material through overhead space. However, they can serve only a limited area. Hoists are of three type: electrical, chain type and pneumatic.

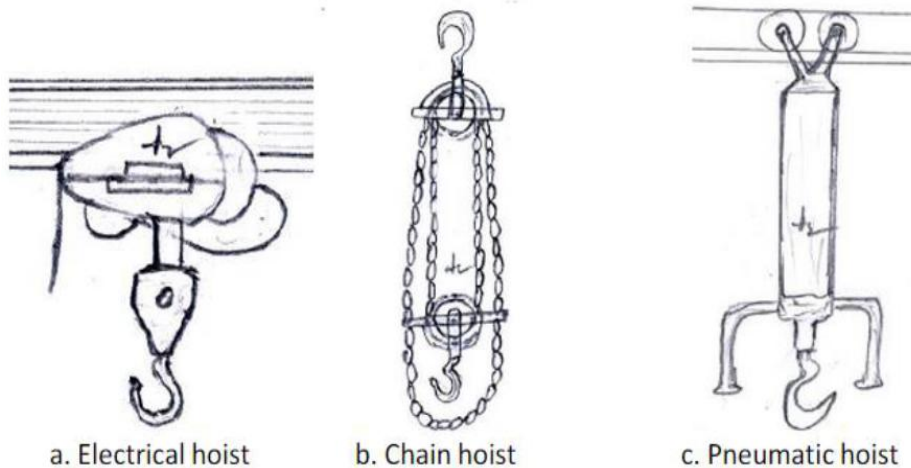


Figure 3.2 Overhead cranes

#### C Trolleys

- Trolley is a small vehicle with two or four wheels that you push or pull to transport large or heavy objects.

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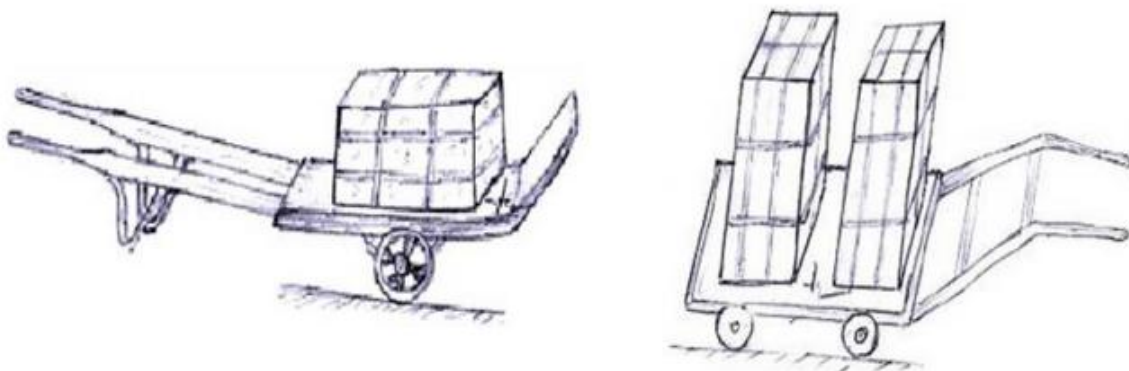


Figure 3.3 Wheeled industrial trucks/trolleys

**In order to operate these machines we follow the following procedures**

- Read technical manuals to understand equipment and controls
- Disassemble machinery and equipment when there is a problem
- Repair or replace broken or malfunctioning components
- Perform tests and run initial batches to make sure that the machine is running smoothly
- Adjust and calibrate equipment and machinery to optimal specifications.

### 3.2 Lifting and placing the load

Lifting heavy items is one of the leading causes of injury in the workplace. Strains and sprains from lifting loads improperly or from carrying loads that are either too large or too heavy are common hazards associated with manually moving materials.

To reduce the injuries and hazards we follow the following principle

- **Unit Load Principle:** Handle product in a unit load as large as possible
- **Space Utilization Principle:** Encourage effective utilization of all the space available
- **Ergonomic Principle:** It recognizes human capabilities and limitation by design effective handling equipment.
- **Simplification Principle:** Encourage simplification of methods and process by removing unnecessary movements

- **Safety Principle:** Encourages provision for safe handling equipment according to safety rules and regulation
- **Computerization Principle:** Encourages of computerization of material handling and storage systems.
- **Layout Principle:** Encourages preparation of operational sequence of all systems available.
- **Maintenance Principle:** Encourages preparation of plan for preventive maintenance and scheduled repairs.
- **Obsolescence Principle:** Encourage preparation of equipment policy as to enjoy appropriate economic advantage.

### 3.2.1 Lifting Stages

There are four lifting stages these are

1. Preparation
2. Lifting
3. Carrying
4. Setting Down

Before doing these stages we recognize (remember) that

- Use mechanical means (e.g. hand trucks, pushcarts, etc.) when possible for heavier or awkward loads. Remember to obtain training and authorization before using a forklift.
- It is easier and safer to push than to pull.
- Keep loads as close to the body as possible and do not twist while lifting, carrying, or setting down a load. Nose, shoulders, hips, and toes should all be facing the same direction.
- Use personal protective equipment where needed, such as gloves with good grip and steel-toed boots where appropriate.
- Implement rest breaks and job rotation for frequent and/or heavy lifting.
- Place items to be lifted within the “power zone”. The power zone is close to the body, between the mid-thigh and mid-chest of the person doing the lifting. This is the area where the arms and back can lift the most with the least amount of effort.



### 3.3 Checking and monitoring Safe and efficient path of movement

As per working manual the operator need to select best movement path for load shifting equipment's in order to reduce risks on equipment's, load/materials and person also.

In order to move the object from one class (department) to another the path must be visible for everyone either the object is moved by shift loading machines or either carried by workers this may reduce the risks of operators, load shifting device and also loaded material.

### 3.4 Applying environmental requirements and procedures

Environmental permits have played a major role in improving industry's environmental performance across the last few decades. Because they adopt a precautionary approach during the setting of environmental requirements, permitting strategies have also favored pollution prevention. However, current permitting systems will have to adapt to address growing pressures on the environment.

<b>Self-Check-3</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below.

**Part I. Multiple choose: Choose the correct answer for the following question.**

\_\_\_\_\_ 1. One of the following is a systematic method of moving, packing and storing of material?

- |                      |                        |
|----------------------|------------------------|
| A. Material handling | C. Ergonomic Principle |
| B. Simplification    | D. Abrasives           |

\_\_\_\_\_ 2. Which One of the following *is not* the lifting Stages of material?

- |                |            |             |                 |
|----------------|------------|-------------|-----------------|
| A. Preparation | B. Lifting | C. Carrying | D. Hand trolley |
|----------------|------------|-------------|-----------------|

**Part II. Matching**

**Direction:** Match column “A” with the descriptions in Column “B”. Write the letter of the correct answer on the provided space.

**Column “A”**

**Column “B”**

- |                              |                                   |
|------------------------------|-----------------------------------|
| _____ 1. Cranes              | A. Lifting stage                  |
| _____ 2. Setting down Cranes | B. Principle of material handling |
| _____ 3. Unit load           | C. Personal protective equipment  |
|                              | D. Material handling equipment    |

**Part III. Give short answer**

**Instructions:** Perform the following tasks. Key answer you’re seen before of the references book

1. Write at list three load shift device
2. Write at list four operate load shift device procedure
3. list at least 5 principles used to reduce injuries and hazards

### OPERATION SHEET-3

**OPERATION TITLE: Operating and monitoring load shifting equipment**

**PURPOSE:**

To train our trainees about method of preparing textile materials by studying all steps and procedures.

**CONDITIONS OR SITUATIONS FOR THE OPERATIONS:**

The operation process can be performed by following the procedure and steps.

**EQUIPMENT TOOLS AND MATERIALS :**

To prepare for load shift equipment's and material required are carts, overhead cranes and trolleys, front end loader/back hoe, ride and fork lift and pallet trucks workshop or store travelling cranes, chain blocks.

**PROCEDURE:**

- select load shift equipment
- adjust the load shift equipment
- Plant correctly set-up for processing;
- Process monitoring and recording;
- Monitoring and recording of key process parameters (temperature, pressure etc.) in

**PRECAUTIONS:**

The operation can be performed by applying standard occupational health and safety rule.

**QUALITY CRITERIA:** The final appearance of the Operate and monitor load shifting equipment can be checked its quality by the trainers and trainees .If there is a quality problem checking again and if they completed the learning outcome preparation for operate and load shift equipment pass to next learning outcome.

## LAP Test 3

## Practical Demonstration

**Instructions:** Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task 1. Apply OHS practices

Task 2: Select and operate load shift equipment

Task 3: Adjust the load shift equipment

Task 4: operate and monitoring load shift equipment

## Unit four: Use power tools

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Appropriate power tools to the task requirements.
- Using power tools in determining sequence of operations and job specification
- Adhering all safety requirements
- Identifying and marking unsafe or faulty tools
- Undertaking operational maintenance of tools
- Storing safely power tools in appropriate location

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Select power tools to the task requirements.
- Determine sequence of operations and job specification Using power tools
- Adhere all safety requirements
- Identify and marking unsafe or faulty tools
- Undertake operational maintenance of tools
- Store power tools in appropriate location

## 4.1 Appropriate power tools to the task requirements

**Power tools** are some of the most time-saving devices ever created. Before doing the task firstly select the appropriate power tools. The appropriate power tool for doing the required task is listed below;

- Electric or pneumatic/hydraulic drills,
- grinders
- jigsaws
- nibblers
- cutting saws
- sanders
- planers
- routers
- pedestal drills and
- pedestal grinders

## 4.2 Using power tools in determining sequence of operations and job specification

- Power tools used for lamping are:- multi grips, vice, jigs and fixtures and clamps.
- Power tools used for Finnish and size or shape:-sander and leath,

## 4.3 Adhering all safety requirements

Safety precautions to remember include the following:

- These tools shall not be used in an explosive or flammable atmosphere;
- Before using the tool, the worker shall inspect it to determine that it is clean, all moving parts operate freely, and the barrel is free from obstructions;
- The tool shall not be loaded unless it is to be used immediately. A loaded tool shall not be left unattended, especially where it could be available to unauthorized persons;
- Hands shall be kept clear of the barrel end;

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- To prevent the tool from firing accidentally, two separate motions are required for firing: one to bring the tool into position and another to pull the trigger;
- If a powder-actuated tool misfires, the employee shall wait at least 30 seconds, then try firing it again;
- If it still will not fire, the user shall wait another 30 seconds so that the faulty cartridge is less likely to explode then carefully remove the load. The bad cartridge shall be put in water;
- Suitable personal protective equipment are essential when using a powder-actuated tool;
- The muzzle end of the tool shall have a protective shield or guard centered perpendicularly on the barrel to confine any flying fragments or particles that might otherwise create a hazard when the tool is fired. The tool shall be designed so that it will not fire unless it has this kind of safety device;
- All powder-actuated tools shall be designed for varying powder charges so that the user can select a powder level necessary to do the work without excessive force; and
- If the tool develops a defect during use, it shall be tagged and taken out of service immediately until it is properly repaired.

#### 4.4 Identifying and marking unsafe or faulty tools

Before starting the task we identify and marking unsafe or faulty tools because these unsafe or faulty tools cause damage or injuries.

The worker or employee shall be use these things to avoid injuries and damages these are

##### **Guards**

Hazardous moving parts of a power tool need to be safeguarded. For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by employees.

Guards, as necessary, shall be provided to protect the operator and others from the following:

Point of operation;

Nip points;

Rotating parts;

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Flying chips; and  
Sparks.

### **Safety Switches**

The following hand-held power tools shall be equipped with a momentary contact “on-off” control switch: drills, tappers, fastener drivers, horizontal, vertical and angle grinders with wheels larger than two inches in diameter, disc and belt sanders, reciprocating saws, saber saws and other similar tools. These tools also may be equipped with a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.

### **Powered Abrasive Wheel Tools**

Powered abrasive grinding, cutting, polishing, and wire buffing wheels create special safety problems because they may throw off flying fragments or excessive dust.

In addition, when using a power grinder:

Always use eye protection and a dust mask;

Turn off the power when not in use; and

Never clamp a hand-held grinder in a vise.

### **Powder-Actuated Tools**

Powder-actuated tools operate like a loaded gun and shall be treated with the same respect and precautions. The use of powder-actuated tools is prohibited until approved by Environmental Health and Safety.

### **Hydraulic Power Tools**

The fluid used in hydraulic power tools shall be an approved fire-resistant fluid and shall retain its operating characteristics at the most extreme temperatures to which it will be exposed. The manufacturer’s recommended safe operating pressure for hoses, valves, pipes, filters and other fittings shall not be exceeded.

### **Ergonomics**

The use of hand and portable power tools may be the source of certain ergonomic stressors, which may lead to the development of musculoskeletal disorders

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## 4.5 Undertaking operational maintenance of tools

- Hand sharpening and cleaning
- Lubricating
- Tightening simple tool repairs and adjustments using engineering principles
- Routine maintenance

## 4.6 Storing safely power tools in appropriate location

Power tools can be hazardous when improperly used and placed. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic, and powder-actuated.

The following general precautions shall be observed by power tool users:

- Never carry a tool by the cord or hose;
- Never remove prongs from any cords;
- Never stand in or near water when using tools;
- Always use a Ground Fault Circuit Interrupters (GFCI) with electrical tools if working in a wet environment;
- Never “yank” the cord or the hose to disconnect it from the receptacle;
- Keep cords and hoses away from heat, oil and sharp edges;
- Replace all frayed and/or damaged extension cords. Do not try to tape cords;
- Disconnect tools when not in use, before servicing and when changing accessories such as blades, bits and cutters;
- All observers shall be kept at a safe distance away from the work area;
- Secure work with clamps or a vise, freeing both hands to operate the tool;
- Avoid accidental starting. The worker shall not hold a finger on the switch button while carrying a plugged-in tool;
- Tools shall be maintained with care. They shall be kept sharp and clean for the best performance. Follow instructions in the user’s manual for maintenance, lubricating and changing accessories;

- Maintain good footing and balance;
- Avoid loose fitting clothes, ties or jewelry such as bracelets, watches or rings, which can become caught in moving parts;
- Use tools that are either double-insulated or grounded (three-pronged);
- Keep work area well lit when operating electric tools;
- Ensure that cords and hoses do not pose as a tripping hazard; and
- All portable electric tools that are damaged shall be removed from use and tagged “Do Not Use”. This shall be done by supervisors and/or employees.

<b>Self-Check 4</b>	<b>Written Test</b>
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**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Why it is important of using power tools properly ?( 5 points)
2. Why we apply OHS before performing every activity (5 points)
3. Give 5 examples of power tools and their function (10 points)

## OPERATION SHEET-4

### OPERATION TITLE: Use power tools

#### PURPOSE:

To train our trainees about the use of power tools by studying all steps and procedures.

#### CONDITIONS OR SITUATIONS FOR THE OPERATIONS:

The operation process can be performed by following the procedure and steps.

#### EQUIPMENT TOOLS AND MATERIALS :

To use power tools equipment and material needed are :-safety tools like glove, goggle safety boot ,overall and Electric or pneumatic /hydraulic drills, Grinders and jigsaws, Nibblers and cutting saws, Sanders and planers, Routers and pedestal drills , pedestal grinders ,Clamping/securing (multigrips,vice,jigs and fixtures,clamps),Alignment and adjustment and Finish and size or shape

#### PROCEDURE: ,

- Read the information sheet well
- Prepare the required material Use gloves and appropriate safety footwear when using electric tools.
- Check the functionality of the power tool and parts
- Plug to the electric plug
- Operate electric tools within their design limitations
- Use them properly and unplug after work
- Clean the area and keep them in their proper place.
- Store electric tools in a dry place when not in use.
- Do not use electric tools in damp or wet locations unless they are approved for that purpose.

- Keep work areas well lighted when operating electric tools.
- Ensure that cords from electric tools do not present a tripping hazard.

**PRECAUTIONS:**

The operation can be performed by following occupational health and safety rule.

Use of proper OHS materials

- Operational workplace activities
- Restricted space
- Hazardous, controlled or exposed conditions
- Work may be conducted in small to large scale enterprises and may involve individual and team activities.

**QUALITY CRITERIA:**

The final operational use of the power tools can be checked by the trainers and trainees .If there is an operational problem checking again and if they completed the use pass to next unit.

## LAP Test 4

## Practical Demonstration

**Instructions:** Given necessary templates, workshop, tools and materials you are required to perform the following tasks within 3 hours.

Task 1: Clean the given tools and equipment.

Task 2: Using the given template, use different power tools and clean their waste produced and accumulated in a particular technology area, then identify whether these are for composting, recycling or disposal.

## Unit five: Complete documentation

This unit is developed to provide you the necessary information regarding the following content coverage and topics:

- Relaying information of operations
- Interpreting documentation and records

This unit will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Relay information of operations
- Interpret documentation and records

## 5.1 Relay information of operations

Documentation is the key to good manufacturing products (GMP) compliance and ensures traceability of all development, manufacturing, and testing activities. Documentation provides the route for auditors to assess the overall quality of operations within a company and the final product.

## 5.2 Interpret documentation and records

Documentation is the key to GMP compliance and ensures traceability of all development, manufacturing, and testing activities. Documentation provides the route for auditors to assess the overall quality of operations within a company and the final product. these are files must be documented

- Invoices or delivery notes for the different loads that have to be delivered at the various customers
- Credit notes for goods that were returned
- If your customer pays cash upon delivery your driver will have to issue a receipt to the customer after checking the accuracy of the invoice.
- If your customer pays by account they have to acknowledge that they have received the goods. This is why the receiving clerk at the customer's premises has to sign the invoice or delivery note and also note the date that the goods were received.
- If an invoice does not correspond with the goods delivered in quantity, description or price, you have to advise stores and administration.
- Paperwork should be completed the same day and handed to the different department's invoices to admin, etc.
- The supervisor has to report regularly about the use of vehicles, the cost of vehicles, the number of deliveries, the mass of the deliveries, if the deliveries were made on time, etc.
- Finance has to know which goods were delivered and returned so that their statements to customers are correct





**Self-Check-5**

**Written Test**

**Directions:** Answer all the questions listed below.

**Part I. Short Answer: Give short answer for the following questions.**

1. What are related documents related in industry work?
2. Write the source of receipt.
3. What are the responsibilities of supervisor in quality controlling process?

## Reference

1. [www.cleanteek.com](http://www.cleanteek.com)
2. Technical textile book
3. Hand book of Sop manual
4. Safety Manual and Guide
5. [www.wynnslocksmiths.com.au](http://www.wynnslocksmiths.com.au)

**Participants of this Module (training material) preparation**

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