Carpentry

Level-II

Learning Guide-63

Unit of Competence: Construct Stairs and Stair Components

Module Title: Constructing Stairs and Stair Components

LG Code: EIS CRP2 M13 0919L-9LG-63

TTLM Code: EIS CRP2 M13 0919V1

LO9: Clean up

Instruction Sheet	Learning Guide # 63

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics –

- Checking Stair with marks and removing surfaces
- Clearing Area and removing waste material.
- Cleaning, maintaining and storing Tools and equipment

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

- ✓ Stair checked with marks removed and surfaces left to specified finish
- ✓ Area cleared with waste material removed.
- ✓ Tools and equipment cleaned, maintained and stored.

Learning Instructions:

Read the specific objectives of this Learning Guide.

Follow the instructions described below

Read the information written in the information Sheets below

Accomplish the Self-check

If you earned a satisfactory evaluation from the “

Do the “LAP test” (if you are ready).

Information sheet #1	Checking Stair with marks and removing surfaces

1.1 Checking Stair with marks and removing surfaces

- ✓ Removal of rubbish material from the finished stair.
- ✓ Check the smoothness and clean the surface by using standard.
- ✓ By using sand paper make smooth and to paint proper color.

Self check # 1	Written test

Name: _____ Date: _____

Part: - I True or False item

Direction: if the statement is correct write true if the statement is wrong writhe false on space provided. (2 mark each)

_____1. Removal of rubbish material from the finished stair.

A. True B. false

_____ 2. Check the smoothness and clean the surface by using standard.

A. True B. false

Note: Satisfactory rating – above 50% **Unsatisfactory - below 50%**

You can ask you teacher for the copy of the correct answers

Name: _____ Date: _____

Answer sheet

1. ----------
2. ----------

Score = _____

Rating: _____

Information sheet #2	Clearing Area and removing waste material

2.1 Clearing Area and removing waste material

2.1.1 Disposing, reusing and recycling materials

Recyclable materials include many kinds of glass, paper, cardboard, metal, plastic, tires, textiles, batteries, and electronics. The composting or other reuse of biodegradable waste—such as food or garden waste—is also a form of recycling**.**

Reuse and recycling of C&D materials is one component of a larger holistic practice called sustainable or green building construction. The efficient use of resources is a fundamental tenet of green building construction. This means reducing, reusing, and recycling most if not all materials that remain after a construction or renovation project. Green building construction practices can include salvaging dimensional lumber from the project, using aggregates reclaimed from crushed concrete or grinding drywall scraps for use on site as a soil amendment.

At the end of a building's life, demolition generates large amounts of materials that can be reused or recycled, principally wood, concrete and other types of masonry, and drywall. Rather than demolish an entire building, consider "deconstructing" all or part of the structure. Deconstruction is the orderly dismantling building components for reuse or recycling. In contrast to demolition, where buildings are knocked down and materials are either land filled or recycled, deconstruction involves carefully

Taking apart portions of buildings or removing their contents with the primary goal being reuse. It can be as simple as stripping out cabinetry, fixtures, and windows, or as involved as manually taking apart the building frame.

- **Recycling**

Recycling is the process of converting waste materials into new materials and objects. It is an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions. Recycling can prevent the waste of potentially useful materials and reduce the consumption of fresh raw materials, thereby reducing: energy usage, air pollution (from incineration), and water pollution (from land filling).

Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse, and Recycle" waste hierarchy. Thus, recycling aims at

environmental sustainability by substituting raw material inputs into and redirecting waste outputs out of the economic system.

- **Recycling and reuse**

Recycling involves the collection of used and discarded materials processing these materials and making them into new products. It reduces the amount of waste that is thrown into the community dustbins thereby making the environment cleaner and the air fresher to breathe

Fig-2.1 - Recycling and reuse

Self check # 2	Written test

Part: I True or false item

Direction: if the statement is correct write true if the statement is wrong write false on space provided. (2 mark each)

_____1. Demolition generates large amounts of materials that can be reused or recycled.

_____2. Recyclable materials include many kinds of glass, paper, cardboard, metal, and plastic.

_____ 3. Recycling is a key component of modern waste reduction and is the third component of the "reduce, reuse, and recycle.

Note: Satisfactory rating – above 50% **Unsatisfactory - below 50%**

You can ask you teacher for the copy of the correct answers.

Name: _____ Date: _____

Answer sheet

1.----------

2.----------

3. ----------

Score = _____

Rating: _____

Information sheet # 3	Cleaning, maintaining and storing tools and equipment

3.1 Cleaning Tools and equipment

3.1.1 Hand tools and equipment

Hammerheads should firmly secure to the hand. Trowel, saws, chisels, and other tools should not be left lying on scaffolds, when not used.

All ropes and chains for lifting should be inspected before use they should not be loaded beyond the limit recommended by the manufacturer.

Nails or bolts used in construction scaffold should be of adequate size of sufficient number at each connection to develop the designed strength of structure.

Always get permission to use the machine. Inspect wood before planning, cutting, etc and remove any nails, dirt, or other things that will injure the cutting blade. Keep loose clothing, such as ties and sleeves, tucked in or rolled up. Never allow your fingers to pass over the revolving blades. Keep the safety guard in place and properly adjusted.

3.1.2 Maintaining plants, tools and equipment

Tools and equipment used at the construction site undergo rigorous handling. From initial foundation development, to the final construction of the exterior trim, these tools are exposed to large amounts of dirt and abuse. Proper maintenance of construction tools and equipment is critical to preserving them for future construction jobs. Failure to maintain the tools properly results in unnecessary expense. Clean the construction tools and equipment after each day's work. While a thorough cleaning is not required each day, a general wipe-down and removal of the heaviest construction dirt is key to extending the life of the tools. Lubricate air tools and pneumatic equipment before each day's use. Condensation in the airline creates an environment for corrosion inside pneumatic tools. Coating the internal components of these tools with air-tool oil will displace the moisture and prevent tool corrosion. Inspect and repair all construction equipment and tools at the completion of each job. Make all repairs to the equipment that is necessary for future construction work. This will prevent time being wasted repairing faulty equipment at future construction job sites.

3.2.1.2 Maintenance of Machinery, Plants and Equipment

Activities of the Institute in this field is used in the electric power industry, ferrous and non-ferrous industry, metal processing industry, coal production, processing industry, etc..

The program of activities includes the following main groups of projects:

- Design and the introduction system of preventive and planned maintenance of plant and equipment,
- Introduction system of maintenance according to the determined state,
- Technological design for workshop for the manufacture and repair of equipment and spare parts for maintenance,

➢ **Designing, implementing and running system for preventive maintenance planning**

The program includes the following areas of work (projects):

- The organizational structure of the maintenance functions,
- A system of labeling systems and devices,
- System identification of spare parts, materials, tools and equipment,
- System for planning and management of maintenance work,
- Technology of maintenance work,
- Security procedures when performing maintenance,
- System planning and management of spare parts, materials, tools and equipment,
- System planning and management of workshops for the production and repair of equipment and spare parts for maintenance,
- A system of technical documentation management,
- Planning and managing of maintenance costs.

➢ **Introducing of maintenance system according to the technical condition**

The main objective of this program is to rationalize the maintenance process - especially improving technology maintenance. Setting the concept of maintenance is carried out by applying the methods of monitoring:

- Visual monitoring of the plant,
- Monitoring noise and vibration
- Monitoring the thermal state of the facilities,
- Controlling of the state of oil and lubricants

- Monitoring the insulation of electrical machines,
- Monitoring the mechanical stress conditions
- Detection of cracks and other damage of metal parts (magnetic flux, eddy current, ultrasonic, radiography, etc.).

Self check # 3	Written test

Name: _____ Date: _____

Part: I true or false item

Direction: if the statement is correct write true if the statement is wrong write false on space provided. (2 mark each)

_____1. Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse, and Recycle

_____2. Inspect and repair all construction equipment and tools at the completion of each job.

_____ 3. Coating the internal components of these tools with air-tool oil will displace the moisture and prevent tool corrosion.

Note: Satisfactory rating – above 50% **Unsatisfactory - below 50%**

You can ask you teacher for the copy of the correct answers.

Name: _____ Date: _____

Answer sheet

1. _____
2. _____
3. _____

Score = _____

Rating: _____

Reference

Publications about wood Order at www.swedishwood.com/publications.

Prepared by: Colin Mackenzie Timber Queensland Limited First produced: April 2007 Revised: May 2012, October 2013

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Design Guide 34 Steel-Framed Stairway Design

Answer keys for learning guide -63

Answer key

Self-check

1. True
2. True

Self –check

1. True
2. True
3. True

Self –check

1. True
2. True
3. True

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