

Task Title: Understanding Rigging Terminology

OALCF Cover Sheet – Learner Copy

Learner Name: _____

Date Started: _____

Date Completed: _____

Successful Completion: Yes No

Goal Path: Employment Apprenticeship

Secondary School Post Secondary Independence

Task Description: The learner will read and interpret terminology used in rigging.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Read continuous text/A1.2

Materials Required:

- Pen/pencil and paper and/or digital device

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Learner Information

Millwrights and other skilled tradespeople use different types of ropes and slings when hoisting and rigging loads.

Read "Rigging Terminology".

Rigging Terminology

Chain Grading Scale: The chain grading system helps riggers understand a chain's capabilities. Chains are made of different materials and produced in various sizes, both of which affect their strength.

- Grade 30 chain is made of low-strength carbon steel. It is used for light-duty applications such as towing, lashing, and guard rails.
- Grade 43 chain is stronger than proof coil chain, and it is often used for more demanding tasks in trucking, logging, and farming.
- Grade 70 chain, also known as transport chain, is made of heat-treated carbon steel. It is often used for towing and securing loads.
- Grade 80, 100, and 120 chains are made of heat-treated alloy steel. Like other chain grades, these are used for tie-downs, towing, and load securing.

Eye Bolt: An eye bolt is a bolt with a loop on one end. Riggers use eye bolts to connect a load to a rigging assembly.

There are two main types of eye bolts: machine eye bolts and nut eye bolts. Machine eye bolts are screwed directly into a threaded hole on a machine or other load. Nut eye bolts are inserted through an unthreaded hole and secured with a nut.

Rigging: Rigging is the equipment used to lift, suspend, support, tow, or tie down a load. It includes chains, wire ropes, slings, and the equipment used to connect these to a load, vehicle, supporting structure, or lifting machine such as a crane or hoist.

Rigging Hooks: Rigging hooks are heavy-duty metal hooks. Several types of hooks are used in rigging, including slip hooks and grab hooks.

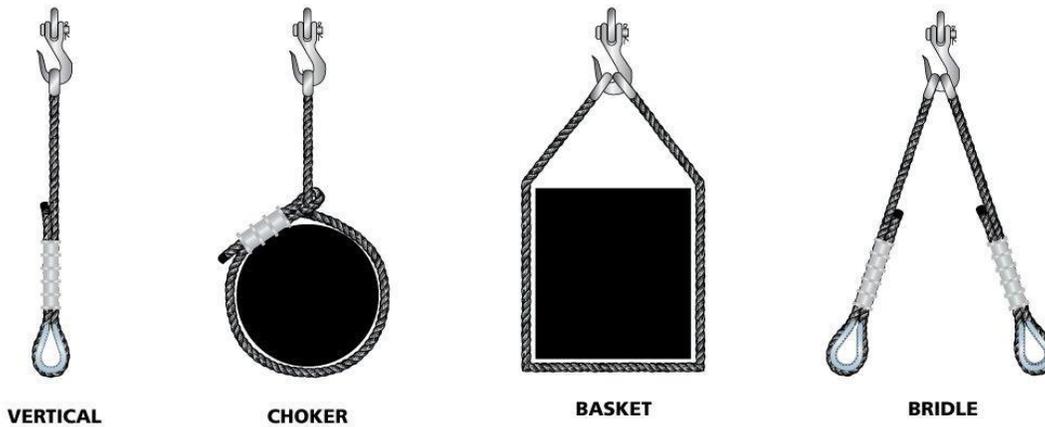
Rigging Sling: A rigging sling is a length of chain or rope with attachment points at both ends. The sling is attached to the load and then attached to a lifting hook or other rigging equipment.

Types of rigging slings include:

- Vertical hitch: connects one end of a sling to a crane hook and the other end to the load.
- Choker hitch: wraps a single sling around the load. One end of the sling passes through an attachment or loop on the other end and is then attached to a lifting hook or other rigging hardware.

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- Basket hitch: the sling is wrapped around the load and both ends are connected to the hook.
- Bridle hitch: two or more vertical hitches to evenly distribute the load's weight.



Shackle: A lifting shackle is comprised of a metal U-shaped crown or bow with a pin penetrating the two free ends, which are called lugs. Shackles are used to connect two parts of a rigging assembly.

Turnbuckle: Turnbuckles reduce slack or adjust tension in rigging assemblies. They have a body with tapped holes into which turnbuckle ends with threaded shafts are screwed.

Material adapted from: <https://www.huyett.com/blog/rigging-terms?srsId=AfmBOoq6RoDyK0Z5DdyRILYmQcK1Alp6acDqZ50cyMyd5rtkLiWh4B6u>

Work Sheet

Task 1: List the types of chains that are made of heat-treated alloy steel.

Answer:

Task 2: Describe the difference between machine eye bolts and nut eye bolts.

Answer:

Task 3: Describe the difference between a shackle and a lug.

Answer:

Task 4: What is the purpose of a turnbuckle?

Answer:
