

OALCF Tasks for the Apprenticeship Goal Path: Prepared for the Project, *Developing Best Practices for Increasing, Supporting and Retaining Apprentices in Northern Ontario (2014)*

OALCF Task Cover Sheet

Task Title: Understanding the Terminology of Hoisting and Rigging

Learner Name:	
Date Started:	Date Completed:
Successful Completion: Yes___ No___	
Goal Path: Employment___ Apprenticeship✓ Secondary School___ Post Secondary___ Independence___	
Task Description: Learners on the Apprenticeship path will need to understand and interpret terminology used in the Millwright Trade that is related to Hoisting and Rigging.	
Competency: A - Find and Use Information	Task Group(s): A2 Interpret Documents
Level Indicators: A2.1: Interpret very simple documents to locate specific details A2.2: Interpret simple documents to locate and connect information	
Performance Descriptors: see chart on last page	
Materials Required: <ul style="list-style-type: none"> • Attached Hoisting and Rigging Terminology Chart • Pen and paper • Highlighter 	

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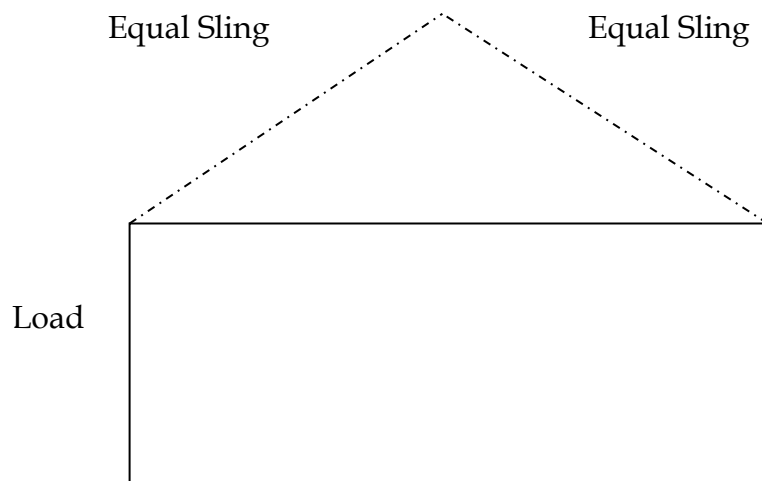
Learner's Instructions and task sets

Millwrights need to understand and use the terminology related to Hoisting and Rigging when working in this trade. Use the **Rigging and Hoisting Terminology** list attached to complete the following tasks.

Task 1: List two types of rope used in rigging.

Task 2: What does the acronym ASME stand for?

Task 3: When angles of rigging (slings) are equal, the balance point of the load is in the centre. (also known as the Centre of Gravity) Highlight the Centre of Gravity in the following diagram.



Task 4: Name the type of load that has a constant applied force.

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Rigging and Hoisting Terminology

Term	
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
Capacity	The limits of the rigging equipment
Centre of Gravity	The point around which an object's weight is evenly balanced
Design Factor	An industry term denoting a product's theoretical reserve capability; usually computed by dividing the catalog Ultimate Load by the Working Load Limit and generally expressed as a ratio, e.g., 5 to 1
Dynamic Forces	Forces that are present that may introduce a higher load limit. Forces may include wind, and/or friction may be present
Hand Signals	Means of communication between the crane operator and the person directing the lift at all times
Knots	Bowline, Pipe Hitch, Reef or Square Knot, Two Half Hitches, Running Bowline and Figure Eight
Plumb	In a vertical or perpendicular line used to test verticality or alignment of the load
Shock Load	A force that results from the rapid application of a force (such as impacting or jerking) or rapid movement of a static load. A shock load significantly adds to a static load.
Static Load	The load resulting from a constant applied force of load.
Rigging Hardware	Hoisting hooks, Wire Rope Clips, Swivels, Shackles, Eye Bolts, Snatch Blocks, Turnbuckles and Spreader and Equalizer Beams
Tackle	All equipment used in the lift, does not include hook (slings, wire rope, shackles, chain fall, etc)
Types of Rope	Polypropylene, Nylon and Polyester
Types of Slings	Wire Rope, Chain, Synthetic Web Slings, Endless or Grommet Slings, Standard Eye and Eye, Twisted Eye, Metal Mesh Slings and Fibre Rope Slings
Unsafe load	Load is not balanced or rigging equipment is incorrect capacity
Weight	Weight of load and weight of rigging equipment to determine rigging and craning requirements
Weight of Tackle	Total weight of all lifting equipment
Working Load	The maximum mass or force which the product is authorized to support in a particular service
Working Load Limit	The load that a piece of Lifting Equipment is designed and rated to safely lift.

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Answer Key

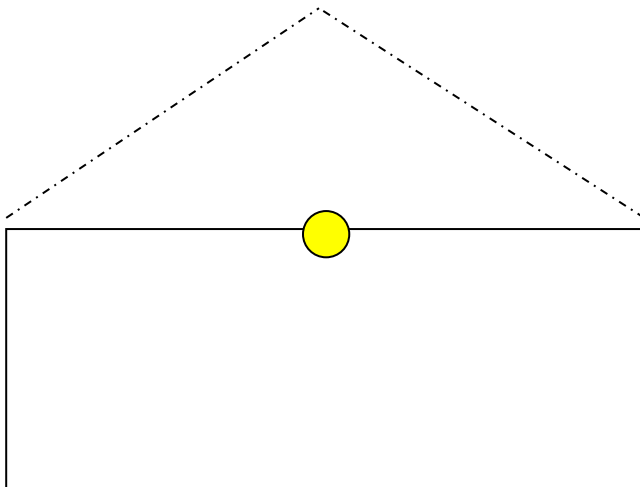
Task 1: List two types of rope used in rigging.

Polypropylene, Nylon or Polyester

Task 2: What does the acronym ASME stand for?

American Society of Mechanical Engineers

Task 3: When angles of rigging (slings) are equal the balance point of the load is in the centre. Highlight the Centre of Gravity in the following diagram.



Task 4: Name the type of load that has a constant applied force.

Static Load

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Performance Descriptors		Needs Work	Completes task with support from practitioner	Completes task independently
A2.1	<ul style="list-style-type: none"> scans to locate specific details 			
	<ul style="list-style-type: none"> interprets brief text and common symbols 			
	<ul style="list-style-type: none"> locates specific details in simple documents, such as labels and signs 			
	<ul style="list-style-type: none"> identifies how lists are organized (e.g. sequential, chronological, alphabetical) 			
A2.2	<ul style="list-style-type: none"> performs limited searches using one or two search criteria 			
	<ul style="list-style-type: none"> extracts information from tables and forms 			
	<ul style="list-style-type: none"> uses layout to locate information 			
	<ul style="list-style-type: none"> makes connections between parts of documents 			
	<ul style="list-style-type: none"> makes low-level inferences 			

This task: was successfully completed____ needs to be tried again____

Learner Comments

Instructor (print)

Learner Signature