Task Title: Understanding Working Load Limits

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 interpret information about working load limits for ropes from a chart.

Main Competency/Task Group/Level Indicator:

- Find and Use Information/Interpret documents/A2.2

Materials Required:

- Pen/pencil and paper and/or digital device

Learner Information

Industrial mechanics (millwrights) use working load limits to make sure the load they are lifting does not exceed safety limits.

Scan “Working Loads for Wire Ropes”.

Working Loads for Wire Ropes			
			
Rope Size (in.)	Vertical Lift	Choker Hitch	Basket Hitch
PERFORMANCE SERIES ABC WEIGHT IN LBS.			
1/4	1300	960	2600
5/16	2000	1450	4000
3/8	2800	2200	5800
7/16	3800	2800	7800
1/2	5000	3800	10200
9/16	6400	4800	12800
5/8	7800	5300	15600
3/4	11200	8200	22000
7/8	15200	11200	30000
1	19600	14400	40000
PERFORMANCE SERIES XYZ WEIGHT IN LBS.			
1 1/8	24000	18200	48000
1 1/4	30000	22000	60000
1 3/8	36000	26000	72000

Work Sheet

Task 1: The supervisor tells his crew to use a basket hitch configuration to lift a 42,000-pound load. What size of wire rope should be used?

Answer:

Task 2: The crew is using a vertical lift configuration to lift a 5,500-pound load. What size of wire rope should be used?

Answer:

Task 3: The crew is using a vertical lift configuration to lift a 11,000-pound load. What size of wire rope should be used?

Answer:

Task 4: The crew is using a choker hitch configuration to lift a 11,250-pound load. What size of wire rope should be used?

Answer:
