Prepare loads for moving during performing engineering maintenance



Overview

This unit is about your competence in confirming the weight of the load, selecting the appropriate method, selecting and checking the equipment before moving the loads in line with organisational procedures. You will be involved in activities such as confirming the weight of the load, selecting slings and shackles, paying particular attention to lifting points and the balance of the load and ensuring safety of the work area. You will be following your organisation's safe working practices and working within the work permit procedures. This unit is common to the Mechanical, Electrical and Instrumentation & Control disciplines.

This unit deals with the following:

1. Prepare loads for moving

During this work you must take account of the relevant installation procedures and safe working practices AS THEY APPLY TO YOU.

Previous Version:

Adapted from Unit C2.6 of Process Engineering Maintenance NOS – version February 2004. This unit is a contextualised version of a unit produced by the OSC Eng Engineering Competence Standards which was originally designated ECS 2.14.

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Performance criteria

You must be able to:

- P1 work safely at all times, complying with health and safety and other relevant regulations and guidelines
- P2 establish the weight of the load to be moved
- P3 determine the method and select suitable equipment to move the load
- P4 check that the equipment to be used is capable of moving the load safely
- P5 determine a suitable route for moving the load minimising risk to people and property
- P6 ensure that the load is secured and protected before moving operations start
- P7 deal promptly and effectively with problems within your control and report those that cannot be solved

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Knowledge and understanding

You need to know and understand:

- K1 you must have a working knowledge and understanding of what your responsibilities are in respect of Health, Safety and Environment. This should include the limits of your personal responsibility, your legal responsibility for your own health and safety and the health and safety of others
- K2 you must have a working knowledge of the relevant regulations and the safe working practices and procedures required within your work area
- K3 you must have a working knowledge of the lifting, moving and handling equipment, methods and techniques to be followed. This may include: slings and strops, trolleys (powered or manual), winches, rollers, hoists and jacks (hydraulic or screw)
- K4 you must have a working knowledge of how to establish the weight of loads by using manufacturers' details, equipment labels, observation
- K5 you must have a working knowledge of what slinging and lifting methods and techniques can be applied. This may include: slings, strops, shackles
- K6 you must a working knowledge of how to care for lifting equipment and what control procedures are in place. This may include: storage, location, colour codes
- K7 you must have a working knowledge of the types of defects and faults that are possible with lifting equipment. This may include: incorrect certification date, frayed slings
- K8 you must have working knowledge and understanding of route planning methods and techniques. This may include: overhead, access points, walkways
- K9 you must have working knowledge and understanding what reporting lines and procedures to be followed as designated by the company procedures and could involve the: asset owner, plant supervisor, permit controller, work site colleagues, OIM

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Additional Information

Scope/range

- 1 The moving methods and techniques to be used. This must include safe manual handling techniques as well as power assisted methods
- The type of lifting, moving and handling equipment to be used of which the following are examples:
 - 2.1 Hoists
 - 2.2 Chain blocks
 - 2.3 Winches
 - 2.4 Hydraulic jacks
- 3 The characteristics of load to be moved which will take into account the:
 - 3.1 Weight
 - 3.2 Shape
 - 3.3 Lifting points
 - 3.4 Balance points
- 4 The type of location, i.e. the ease of access and final destination of load

Scope/range related to knowledge and understanding

The Knowledge and Understanding levels expressed indicate the minimum level of knowledge and understanding sufficient to perform your role in a manner that would normally be associated with the minimum acceptable performance of a competent person undertaking your role.

The expression "working knowledge and understanding" indicates you are able to:

- 1 Identify and apply relevant information, procedures and practices to your usual role in your expected working environments needing only occasional recourse to reference materials
- Describe, in your own words, the principles underlying your working methods. This does not mean the ability to quote "Chapter and verse". Rather you must know what supporting information is available, how and where to find it and from whom to seek further quidance and information confirm any additional required detail
- 3 Interpret and apply the information obtained to your role, your working practice and in your expected working environment

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Developed by	Cogent
Version number	1
Date approved	May 2010
Indicative review date	May 2012
Validity	Current
Status	Tailored
Originating organisation	Cogent
Original URN	C2.6
Relevant occupations	Engineering Professionals; Engineering and manufacturing technologies; Manufacturing technologies; Transportation operations and maintenance
Suite	Process Engineering Maintenance
Key words	moving loads, safe working, manual handling, slings, shackles, balance of loads, lifting points