

## Setting up and securing marine access structures

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### Overview

This standard identifies the competences you need to set up and secure marine access structures, in accordance with approved procedures. You will be required to set up and secure the access structures, in compliance with health and safety requirements and Lifting Operations and Lifting Equipment Regulations (LOLER). The access structures to be set up will include such items as gangways, platforms, outer-side platforms, under-side platforms, hanging platforms and access ladders. You will be expected to use safe and appropriate techniques to set up, position, level, align and secure the structures in position.

Your responsibilities will require you to comply with health and safety regulations and your organisation's policies and procedures for the setting up of the access structures. You will be required to report any problems with the setting up activities that you cannot resolve, or which are outside your defined authority, to the relevant people. You will be expected to work with a minimum of supervision, taking personal responsibility for your own actions and for the accuracy and safety of the work that you undertake.

Your underpinning knowledge will provide a good understanding of your work and will provide an informed approach to applying the required setting up and securing procedures for marine access structures. You will understand the setting up and securing procedures used and their application and will know about the setting and securing requirements, equipment and materials to be used, in sufficient depth to provide a sound basis for carrying out the activities to the required standards.

You will understand the safety precautions required when carrying out the setting up and securing operations. You will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to yourself and others in the workplace.

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### Performance criteria

#### You must be able to:

1. work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
2. identify the most appropriate location for the access structure and prepare the site for the installation
3. select the most appropriate access structures to ensure that safety regulations will be met
4. set up and install the access structure components in the correct sequence
5. check that the erected structures are safe, secure, stable and ready for use
6. deal promptly and effectively with problems within your control and report those that cannot be solved
7. inform the appropriate people when the installation is completed and ready for use
8. complete relevant documentation in line with organisational procedures

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### Knowledge and understanding

#### You need to know and understand:

1. the specific safety precautions to be taken when setting up and securing access structures, and the need for ensuring the load security (such as general workshop and site safety, appropriate personal protective equipment (PPE), protecting other workers during the lifting operations; accident procedure; statutory regulations, risk assessment procedures and COSHH regulations)
2. the hazards associated with setting up and securing access structures and how they can be minimised
3. an understanding of the Approved Code of Practice (ACOP) for safe use of lifting equipment, and Lifting Operation and Lifting Equipment Regulations (LOLER) also BS7121
4. the specific requirements for the marking of lifting equipment and the specific method used in the organisation in which you are working
5. the various types of access structures used in the marine environment (such as gangways, platforms, outer-side platforms, under-side platforms, hanging platforms and access ladders)
6. the methods of assembling the access structures and the equipment that is used
7. the range of equipment that is to be used for lifting the access structures (such as hand and power operated cranes, winches, pulling equipment)
8. the lifting equipment accessories that are to be used (such as slings, chains, wire ropes, eye bolts)
9. checks to be made on the lifting equipment prior to use and the items that you should look for
10. how to carry out in-service inspections of the equipment and what to do should any defective equipment be identified
11. how to determine the approximate weight of the load to be moved
12. factors which affect the selection of the lifting equipment and lifting accessories (such as weight, type of load operating environment)
13. how to calculate loads on winches/lead ropes on multi-sheaved rigs
14. how to identify the included angle when using multi-leg slings
15. how to check that the lifting equipment is capable of lifting the load to be moved
16. how to determine the centre of gravity of the load and how to determine suitable slings and lifting points
17. how to locate and position the access structures and the range of equipment that can be used (such as powered lifts, sky

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- climbers, hanging baskets, slings/wire ropes, harnesses, hydraulic jacks/skids, pulley blocks, man-riding baskets and chain blocks)
18. the need to make allowances for the rise and fall of water levels due to tidal effects
  19. how to secure the access structures and the equipment that can be used
  20. the problems that can occur with the setting up and securing operations and how they can be avoided
  21. the extent of your own responsibility and whom you should report to if you have problems that you cannot resolve

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### Scope/range related to performance criteria

1. Ensure that the access structure, lifting and securing components are in a usable condition, by checking **all** of the following:

1. the access structure being used is compliant with health and safety requirements (LOLER)
2. all wires/slings are free from defect
3. the lifting equipment is inspected and checked for sufficient SWL (safe working load) or WLL (working load limit) for the operation
4. the identification number and SWL/WLL are clearly marked and tagged on the structure and equipment selected
5. the access structure and securing equipment is suitable for the activity and environment of the work
6. allowances have been made for rise and fall of tides (where applicable)

2. Install **four** of the following types of access structures, using the correct sequence:

1. gangways
2. platforms
3. outer-side platforms
4. under-side platforms
5. hanging platforms
6. access ladders
7. other specific access structure

3. Use **four** of the following lifting and moving methods to position the access structure:

1. cranes
2. winches
3. powered lifting equipment
4. lifting appliances
5. pulling appliances
6. block combinations
7. other specific method

4. Locate and position the access structures, using **five** of the following:

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1. powered lifts
2. sky climbers
3. hanging baskets
4. slings/wire ropes
5. harnesses
6. hydraulic jacks/skids
7. pulley blocks
8. man-riding baskets
9. chain blocks

5. Secure the erected access structures, using **three** of the following:

1. guide wires/ropes
2. eye bolts/shackles
3. hanging frames
4. stays/stiffeners
5. pad eyes
6. securing lugs
7. bottle screw

6. Complete the relevant documentation in line with organisational procedures, for the access structure erection activity, to include **two** of the following:

1. lifting procedure sheets
2. defect reporting
3. inspection reports
4. risk assessments
5. non-conformance report
6. other specific reporting method

## Behaviours

### **Behaviours:**

You will be able to apply the appropriate behaviours required in the workplace to meet the job profile and overall company objectives, such as:

- strong work ethic
- positive attitude
- team player
- dependability
- responsibility
- honesty
- integrity
- motivation
- commitment

## Setting up and securing marine access structures

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