

Positioning and securing aircraft access structures

Overview

This standard identifies the competences you need to position and secure aircraft access structures, in accordance with approved procedures. You will be required to position 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 walkways, fixed platforms/staging, access steps/stairs, access ladders, and moveable staging/towers. 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 organisational policy and procedures for the setting up of the access structures, and to report any problems with the positioning and securing activities that you cannot personally resolve, or are outside your permitted authority, to the relevant people. You will be expected to work either with a high level of supervision or as a member of a team, and you will take personal responsibility for your own actions and for the safety and integrity of the structures erected. Where team working is involved, you must demonstrate a significant personal contribution during the team activities in order to satisfy the requirements of this standard, and you must demonstrate competence in all the areas required by the standard.

Your underpinning knowledge will be sufficient to provide a sound basis for your work, and will provide an informed approach to applying the required positioning and securing procedures to aircraft access structures. You will have an understanding of the positioning and securing procedures used, and their application, and will know about the positioning 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 positioning and securing operations, and the safeguards that are necessary for undertaking the activities. You will be required to demonstrate safe working practices throughout. You will also understand your responsibilities for safety, and the importance of taking the necessary safeguards to protect 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 legislation, regulations, directives and other relevant 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 installed structure is completed and ready for use

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Knowledge and understanding

You need to know and understand:

1. the specific safety precautions to be taken when positioning and securing access structures in an aircraft environment, and the need for ensuring the load security (including items such as general workshop and site safety, appropriate personal protective equipment, protecting other workers during the lifting operations; accident procedure; statutory regulations, risk assessment procedures and COSHH regulations)
2. the hazards associated with positioning and securing access structures, and how they can be minimised
3. the Approved Code of Practice (ACOP) for safe use of lifting equipment, and Lifting Operation and Lifting Equipment Regulations (LOLER) also BS 7121
4. the specific requirements for the marking of lifting equipment, and the specific method used by the organisation in which you are working
5. the various types of access structures used in the aircraft environment (including items such as walkways, fixed platforms/staging, moveable staging/towers, access steps/stairs, access ladders)
6. the methods of assembling the access structures, and the equipment that is used
7. the range of equipment to be used for lifting the access structures (including items such as hand and power operated cranes, winches, pulling equipment)
8. the lifting equipment accessories to be used (including items such as slings, chains, wire ropes, eye bolts)
9. checks to be made on the lifting equipment prior to use, and what you should look for
10. 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 (including items such as weight, centre of gravity, type of load operating environment)
13. how to check that the lifting equipment is capable of lifting the load to be moved
14. how to determine the centre of gravity of the load, and how to determine suitable slings and lifting points
15. how to locate and position the access structures, and the range of equipment that can be used
16. the need to ensure that the structures are level and securely held in position
17. how to secure the access structures, and the equipment that can be used
18. what can go wrong with the positioning and securing operations,

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- and how they can be avoided
- 19. 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) for the operation
 4. the identification number and SWL 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

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2. Position **four** of the following types of access structures, using the correct sequence:
 1. walkways
 2. fixed access steps/stairs
 3. fixed platform systems
 4. mobile steps/stairs
 5. fixed gantry systems
 6. access ladders
 7. moveable staging/towers
 8. other specific access structures
3. Use **four** of the following lifting and moving techniques to position the access structure:
 1. cranes
 2. lifting appliances
 3. winches
 4. pulling appliances
 5. powered lifting equipment
 6. adjustable props/supports
 7. hydraulic jacks/skids
 8. other specific equipment
4. Prepare and position the access structures, to include carrying out **all** of the following:
 1. preparing the area in which the access structures are to be erected (including preparations such as clear of obstructions,

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- level and stable surface)
 - 2. checking all components/sub-assemblies for defects prior to erecting them
 - 3. determining suitable positions for all major components (including items such as vertical supports, access stairs/ladders)
 - 4. positioning all components/sub-assemblies, stays and stiffeners of the access structures
 - 5. checking and ensuring correct horizontal and vertical levels and alignments
 - 6. securing the various components, using appropriate mechanical fastening devices (including items such as nuts and bolts, proprietary fasteners, wire or fibre ropes)
 - 7. checking the stability of the final erected structure
 - 8. checking that the completed structure meets the work requirements
5. Use **two** of the following securing methods during the erection of the access structures:
- 1. bolting
 - 2. wedging
 - 3. lashing
 - 4. clamping
 - 5. welding
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6. Complete the relevant documentation for recording the setting up of the access structures, to include **one** of the following:
- 1. lifting procedure sheet (Competent Person I.D.)
 - 2. equipment inspection records/defect reports
 - 3. risks assessments
 - 4. job documentation

Behaviours

Additional Information

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

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