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**Overview**

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components and equipment to arrange and secure plant or machinery, preparing, arranging and securing plant or machinery equipment

This standard is for people working independently or in a team that arrange and secure plant or machinery and its associated equipment as loads prior to transportation and can be used by operatives, supervisors and managers

**Performance criteria**

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- You must be able to:
- P1 interpret the given information relating to the use of plant or machinery and confirm its relevance
  - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
  - P3 select the required quantity and quality of resources for the methods of work
  - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
  - P5 comply with the given contract information to carry out the work efficiently to the required specification
  - P6 complete the work within the allocated time, in accordance with the programme of work

**Knowledge and understanding**

**Performance Criteria 1**

**Interpretation of information**

You need to know and understand:

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

**Performance Criteria 2**

**Safe work practices**

You need to know and understand:

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 how **emergencies** should be responded to and who should respond
- K6 the organisational **security procedures** for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how **health and safety control equipment** should be used
- K9 how to comply with environmentally responsible work practices to meet the requirements of current **legislation and official guidance**

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**Performance Criteria 3**

**Selection of resources**

You need to know and understand:

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified
- K11 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K12 the organisational procedures to select **resources**, why they have been developed and how they are used
- K13 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

**Performance Criteria 4**

**Minimise the risk of damage**

You need to know and understand:

- K14 how to **protect work** from damage and the purpose of protection
- K15 why **disposal of waste** should be carried out safely and how it is achieved

**Performance Criteria 5**

**Meet the contract specification**

You need to know and understand:

- K16 how **methods of work**, to meet the specification, are carried out and **problems** reported
- K17 how **maintenance** of tools and equipment is carried out

**Performance Criteria 6**

**Allocated time**

You need to know and understand:

- K18 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

**Additional Information**

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**Scope/range related to performance criteria**

**Performance Criteria 1**

- 1 interpretation of drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

**Performance Criteria 2**

- 2 avoidance of risk by complying with the given information relating to at least four of the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment
  - 2.4 safe use, storage and handling of materials
  - 2.5 safe use and storage of tools and equipment
  - 2.6 specific risks to health

**Performance Criteria 3**

- 3 selection of resources associated with own work
  - 3.1 materials, components and fixings
  - 3.2 tools and equipment
  - 3.3 lifting accessories and load restraint equipment

**Performance Criteria 4**

- 4 protection of the work and its surrounding area from damage
- 5 prevent damage and maintain a clean work space
- 6 disposal of waste in accordance with current legislation

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**Performance Criteria 5**

- 7 demonstration of work skills to measure, gauge, calculate, select, fit, configure, test, balance, adjust, secure, position and remove
- 8 use and maintain hand tools, ancillary equipment, lifting accessories and load restraint equipment
- 9 arrange plant, machinery or associated equipment for transportation to given working instruction by at least two of the following methods and secure for safe movement
  - 9.1 driving and operating the following types of plant; wheeled machinery, tracked machinery and rolling machinery onto the transport (non-operational activities)
  - 9.2 suspended loads by slinging and signalling; at least three of the following: balanced, unbalanced, loose, bundled, containers, drums (slinging and signalling)
  - 9.3 by directing and guiding the operations of other lifting plant (e.g. lift truck, excavator)
  - 9.4 directing and guiding machine operators (movement)
  - 9.5 driving transport into plant or machinery on hydraulic jack legs or suspended from a gantry

**Performance Criteria 6**

- 10 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

**Scope/range related to knowledge and understanding**

**Disposal of waste**

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

**Emergencies**

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
  - 2.1 fires, spillages, injuries
  - 2.2 emergencies relating to occupational activities

**Hazards**

- 3 those identified by method of work, risk/COSHH assessments, manufacturers' technical information, statutory regulations and official guidance

**Health and safety control equipment**

- 4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment
  - 4.1 collective protective measures
  - 4.2 local exhaust ventilation (LEV)
  - 4.3 personal protective equipment (PPE)
  - 4.4 respiratory protective equipment (RPE)

**Information**

- 5 drawings, specifications, schedules, method statements, lift plans, risk assessments, manufacturers' information and current regulations governing the arrangement and security of plant or machinery for transportation

**Legislation, Approved Codes of Practice and official guidance**

- 6 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

**Maintenance**

- 7 operative care of hand tools, ancillary equipment, lifting accessories and load restraint equipment

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**Methods of work**

- 8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to
  - 8.1 determine vehicle capacity
  - 8.2 determine weights and sizes (height, length, width) of plant and machinery to be loaded
  - 8.3 check loading and unloading areas
  - 8.4 recognise the requirements to drive and operate plant and machinery for loading and unloading under no load conditions
  - 8.5 recognise the requirements to sling and signal loads for transportation
  - 8.6 recognise the requirements to direct and guide the operations of plant or machinery for loading and unloading
  - 8.7 recognise the requirements to direct and guide the movement of vehicles, plant and machinery for loading and unloading
  - 8.8 recognise the requirements to load equipment using hydraulic jacks and supports
  - 8.9 ensure load is prepared for transportation, secured, restrained, immobilised, hydraulic systems locked, articulation and slew systems locked
  - 8.10 differentiate between load restraint equipment and lifting accessories
  - 8.11 recognise proximity hazards
  - 8.12 select and use suitable lifting accessories and load restraint equipment
  - 8.13 arrange and secure loads
  - 8.14 recognise and determine when specific skills and knowledge are required and report accordingly
  - 8.15 confirm balance, stability and correct weight distribution

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**Methods of work** (continued)

- 8.16 check stability and weight distribution of load prior to releasing securing restraints and lifting accessories
- 8.17 load and unload on a public highway
- 8.18 identify and mark overhangs
- 8.19 remove and store lifting accessories and load restraint equipment on completion of loading and unloading
- 8.20 use hand tools and ancillary equipment
- 8.21 work at height
- 9 team work and communication
- 10 needs of other occupations associated with arranging and securing plant, machinery and equipment for transportation

**Problems**

- 11 those arising from information, resources and methods of work
  - 11.1 own authority to rectify
  - 11.2 organisational reporting procedures

**Programme**

- 12 types of progress charts, timetables and estimated times
- 13 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

- 14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

**Resources**

- 15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and specialist
  - 15.1 lifting accessories and load restraint equipment, steel wire rope, chain, fabric, web, hooks, shackles, clamps, netting and sheeting
  - 15.2 hand tools and ancillary equipment
- 16 identify weight, bearing, pressure, quantity, length and area associated with the method/procedure for arranging and securing plant, machinery and equipment for transportation

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**Security procedures**

17 site, workplace, company and operative

**Glossary**

**Arrange:** position, place, organise on the transporting vehicle

**Secure:** fixed firmly, stable

## COSVR397 – SQA Unit Code HM48 04

### Arrange and secure plant or machinery equipment for transportation

|                                 |   |
|---------------------------------|---|
| <b>Developed by</b>             | ConstructionSkills  |
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| <b>Key words</b>                | Slinger; Signaller; Loader/Securer; Directing and guiding transportation  |