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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 for constructing timber roofs in situ and erecting pre-assembled roof structures

This standard is for people working in the occupational area of erecting timber frame structures (excluding structural post and beam carpentry) and can be used by operatives, supervisors and managers

### Performance criteria

- You must be able to:
- P1 interpret the given information relating to the work and resources to 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 the types of **fire extinguishers** and how and when they are used
- K6 how **emergencies** should be responded to and who should respond
- K7 the organisational **security procedures** for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how **health and safety control equipment** should be used
- K10 how to comply with environmentally responsible work practices to meet current **legislation and official guidance**

**Performance Criteria 3**

**Selection of resources**

You need to know and understand:

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified
- K12 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K13 the organisational procedures to select **resources**, why they have been developed and how they are used
- K14 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:

- K15 how to **protect work** from damage and the purpose of protection
- K16 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:

- K17 how **methods of work**, to meet the specification, are carried out and **problems** reported
- K18 how **maintenance** of tools and equipment is carried out

**Performance Criteria 6**

**Allocated time**

You need to know and understand:

- K19 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

**Additional Information**

**Scope/range related to performance criteria**

**Performance Criteria 1**

- 1 interpretation of drawings, specifications, schedules, digital information, 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 the following
  - 2.1 methods of work
  - 2.2 safe use of health and safety control equipment
  - 2.3 safe use of access equipment and/or working platforms
  - 2.4 safe use, storage and handling of materials, tools and equipment
  - 2.5 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

**Performance Criteria 4**

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

**Performance Criteria 5**

- 7 demonstration of work skills to measure, mark out, fit, align, finish, position and secure
- 8 use and maintain hand tools, portable power tools and ancillary equipment
- 9 construct, erect and/or install the following roof structures to given working instructions
  - 9.1 in-situ roofs (manually and/or mechanically handled)
  - 9.2 pre-assembled roof structures (mechanically handled)

**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

**Fire extinguishers**

- 3 water, CO<sub>2</sub>, foam, powder and their uses

**Hazards**

- 4 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

**Health and safety control equipment**

- 5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment
  - 5.1 collective protective measures
  - 5.2 local exhaust ventilation (LEV)
  - 5.3 personal protective equipment (PPE)
  - 5.4 respiratory protective equipment (RPE)

**Information**

- 6 drawings, specifications, schedules, digital information and 3D modelling, method statements, risk assessments, manufacturers' information, official guidance and current regulations governing buildings associated with erecting timber frame roof structures

**Legislation and official guidance**

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

**Maintenance**

- 8 operative care of hand tools, portable power tools and ancillary equipment

**Methods of work**

- 9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to
  - 9.1 extract and transfer data from drawings for the erection of timber roof structures
  - 9.2 provide information for Building Information Modelling (BIM)
  - 9.3 identify roof components
  - 9.4 construct in-situ, and install flat and pitched roof structures
  - 9.5 erect and install (manually and/or mechanically handled) pre-assembled, flat and pitched roof structures
  - 9.6 take account of other methods of roof construction
  - 8.5 install fire stops, cavity barriers and vapour control layers
  - 8.6 install insulation to achieve the specified energy and carbon performance
  - 8.7 avoid thermal bridging, bypassing and condensation
  - 8.8 apply the principles of airtightness and ventilation
  - 8.8 erect and install temporary propping, bracing and protection measures
  - 8.9 install permanent roof bracing by lateral restraint and holding down methods
  - 8.10 form openings
  - 8.11 work with plant and machinery to lift and transfer loads
  - 8.12 unload and store roof components
  - 8.13 recognise and determine when specialist skills and knowledge are required and report accordingly
  - 8.14 identify and follow the installation quality requirements
  - 8.15 work with, around and in close proximity to plant and machinery
  - 8.16 direct and guide the operations and movement of plant and machinery
  - 8.17 use hand tools, portable power tools and equipment
  - 8.18 work at height
  - 8.19 use access equipment
  - 8.20 economise use of water, report leaks and turn taps off
  - 8.21 recycle materials and minimise waste

9 team work and communication

10 needs of other occupations associated with erecting timber roof structures

**Problems**

11 those arising from information, resources and methods of work

11.8 own authority to rectify

11.9 organisational reporting procedures

**Programme**

12 types of productivity targets and times scales

13 how times are estimated

14 organisational procedures for reporting circumstances which will affect the work programme

**Protect work**

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

**Resources**

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist

16.8 timber, metal and timber based materials, sheet materials, trussed rafters, fire stops, vapour control layers, insulation, preservatives, adhesives, sealants, fittings, fixings and associated ancillary items

16.9 hand tools, portable power tools and equipment

17 confirm resources and materials conform with the specification

18 methods of calculating quantity, length, area and wastage associated with the method and procedure to erect timber roof structures

**Security procedures**

19 site, workplace, company, operative and vehicles



# COSVR290

## Erect timber roof structures

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