# Unit 313 Erecting complex roof structure carcassing components in the workplace

26 credits

**Level:** 3
**UAN:** M/503/2414

**Unit aim:**
The aim is to provide you with the necessary skills and knowledge to:

- interpreting information
- adopting safe and healthy working practices
- selecting materials, components and equipment
- preparing and carrying out carcassing for roofs with gables, hips, valleys and dormers

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

**Assessment criteria that are practical activities are highlighted in bold.**

| 1. Interpret the given information relating to the work and resources when erecting complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 1.1 **interpret and extract relevant information from:** | | | | | | | |
| **a. drawings** | | | | | | | |
| **b. specifications** | | | | | | | |
| **c. schedules** | | | | | | | |
| **d. method statements** | | | | | | | |
| **e. risk assessments** | | | | | | | |
| **f. manufacturers' information** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1.2 **comply with information and/or instructions derived from risk assessments and method statements.** | | | | | | | |
| 1.3 state the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented. | | | | | | | |
| 1.4 describe different types of information, their source and how they are interpreted in relation to: | | | | | | | |
| a. drawings | | | | | | | |
| b. specifications | | | | | | | |
| c. schedules | | | | | | | |
| d. method statements | | | | | | | |
| e. risk assessments | | | | | | | |
| f. manufacturers' information and regulations governing buildings. | | | | | | | |

| 2. Know how to comply with relevant legislation and official guidance when erecting complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 2.1 describe your responsibilities under current legislation and official guidance whilst working: | | | | | | | |
| a. in the workplace | | | | | | | |
| b. in confined spaces | | | | | | | |
| c. at height | | | | | | | |
| d. with tools and equipment | | | | | | | |
| e. with materials and substances | | | | | | | |
| f. with movement/storage of materials and by manual handling and mechanical lifting. | | | | | | | |
| 2.2 describe the organisational security procedures for tools, equipment and personal belongings in relation to: | | | | | | | |
| a. site | | | | | | | |
| b. workplace | | | | | | | |
| c. company | | | | | | | |
| d. operative | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.3 explain what the accident reporting procedures are and who is responsible for making reports | | | | | | | |
| 2.4 state the types of fire extinguishers available when erecting complex roof structure carcassing components and describe how and when they are used. | | | | | | | |

| 3. Maintain safe working practices when erecting complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 3.1 **use health and safety control equipment and access equipment/working platforms safely to carry out the activity in accordance with legislation and organisational requirements when erecting complex roof structure carcassing components**. | | | | | | | |
| 3.2 explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to erecting complex roof structure carcassing components, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: | | | | | | | |
| a. collective protective measures | | | | | | | |
| b. Personal Protective Equipment (PPE) | | | | | | | |
| c. Respiratory Protective Equipment (RPE) | | | | | | | |
| d. Local Exhaust Ventilation (LEV). | | | | | | | |
| 3.3 describe how the relevant health and safety control equipment should be used in accordance with the given instructions | | | | | | | |
| 3.4 state how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with: | | | | | | | |
| a. fires | | | | | | | |
| b. spillages | | | | | | | |
| c. injuries | | | | | | | |
| d. other task-related hazards. | | | | | | | |

| 4. Select the required quantity and quality of resources for the methods of work to erect complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 4.1 **select resources associated with own work in relation to:** | | | | | | | |
| a. **materials** | | | | | | | |
| b. **components** | | | | | | | |
| c. **fixings** | | | | | | | |
| d. **tools and equipment** | | | | | | | |
| 4.2 describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: | | | | | | | |
| a. timber | | | | | | | |
| b. manufactured sheet material | | | | | | | |
| c. metals | | | | | | | |
| d. trussed rafters | | | | | | | |
| e. adhesives | | | | | | | |
| f. sealants | | | | | | | |
| g. fixings | | | | | | | |
| h. associated ancillary items | | | | | | | |
| i. hand and/or powered tools and equipment | | | | | | | |
| 4.3 describe how the resources should be used correctly and how problems associated with the resources are reported | | | | | | | |
| 4.4 explain why the organisational procedures have been developed and how they are used for the selection of required resources | | | | | | | |
| 4.5 describe any potential hazards associated with the resources and method of work | | | | | | | |
| 4.6 describe how to calculate: | | | | | | | |
| a. quantity | | | | | | | |
| b. length | | | | | | | |
| c. area | | | | | | | |
| d. wastage associated with the method/procedure to erect complex roof structure carcassing components. | | | | | | | |

| 5. Minimise the risk of damage to the work and surrounding area when erecting complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 5.1 **protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.** | | | | | | | |
| 5.2 **minimise damage and maintain a clean work space.** | | | | | | | |
| 5.3 **dispose of waste in accordance with legislation.** | | | | | | | |
| 5.4 describe how to protect work from damage and the purpose of protection in relation to: | | | | | | | |
| a. general workplace activities | | | | | | | |
| b. other occupations | | | | | | | |
| c. adverse weather conditions | | | | | | | |
| 5.5 state why the disposal of waste should be carried out safely in accordance with: | | | | | | | |
| a. environmental responsibilities | | | | | | | |
| b. organisational procedures | | | | | | | |
| c. manufacturers' information | | | | | | | |
| d. statutory regulations and official guidance. | | | | | | | |

| 6. Complete the work within the allocated time when erecting complex roof structure carcassing components. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 6.1 **demonstrate completion of the work within the allocated time** | | | | | | | |
| 6.2 state the purpose of the work programme and explain why deadlines should be kept in relation to: | | | | | | | |
| a. types of progress charts, timetables and estimated times | | | | | | | |
| b. organisational procedures for reporting circumstances which will affect the work programme. | | | | | | | |

| 7. Comply with the given contract information to erect complex roof structure carcassing components to the required specification. | | | | | | | |
|---|---|---|---|---|---|---|---|
| You must be able to: | *PER | SO | OQ | WQ | WT | PS | PD |
| 7.1 **demonstrate the following work skills when erecting complex roof structure carcassing components:** | | | | | | | |
| a. **measuring** | | | | | | | |
| b. **marking out** | | | | | | | |
| c. **fitting** | | | | | | | |
| d. **finishing** | | | | | | | |
| e. **positioning** | | | | | | | |
| f. **securing** | | | | | | | |
| 7.2 **erect two of the following to given working instructions:** | | | | | | | |
| a. **inclined roofs with hips and/or valleys** | | | | | | | |
| b. **roof verge and eaves finishings** | | | | | | | |
| c. **dormers** | | | | | | | |
| 7.3 **determine the specification of cut roof component bevels and lengths** | | | | | | | |
| 7.4 **safely use and handle materials** | | | | | | | |
| 7.5 **safely use hand tools, portable power tools and ancillary equipment** | | | | | | | |
| 7.6 **safely store the materials, tools and equipment used when erecting complex roof structure carcassing components** | | | | | | | |
| 7.7 describe how to apply safe work practices, follow procedures, report problems and establish the authority needed to rectify them, to: | | | | | | | |
| a. check existing levels and setting out lines | | | | | | | |
| b. prepare and fix trussed rafters, cut roofs, timber and plastic verge and eaves finishings | | | | | | | |
| c. apply geometry to determine bevels and lengths for cut, equal and unequal, gabled and hipped roofs, with valleys and dormers | | | | | | | |
| d. form joints associated with carcassing | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| e. make and assemble cut roofs | | | | | | | |
| f. use hand tools, power tools and equipment | | | | | | | |
| g. work at height | | | | | | | |
| h. use access equipment | | | | | | | |
| 7.8 describe the needs of other occupations and how to effectively communicate within a team when erecting complex roof structure carcassing components | | | | | | | |
| 7.9 describe how to sharpen hand tools used when erecting complex roof structure carcassing components | | | | | | | |
| 7.10 describe how to maintain the tools and equipment used when erecting complex roof structure carcassing components. | | | | | | | |

# Unit 313 Erecting complex roof structure carcassing components in the workplace

Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

| | |
|---|---|
| **Candidate name:** | |
| **Candidate signature:** | |
| **Date:** | |

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

| | |
|---|---|
| **Assessor name:** | |
| **Assessor signature:** | |
| **Date:** | |

| | |
|---|---|
| **IQA name:** | |
| **IQA signature:** | |
| **Date:** | |