

Open Awards Level 3 End-point Assessment for

ST0433

Engineering

Construction

Erector Rigger

Ofqual: 610/3019/3

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Version History

Version	Date	Change(s) made	Section(s)	Publication source(s)
1		New document.	All	Development Team
1.1	19/1/24	Clarified practical test	Assessment element 2	Development Team
1.2	31/01/24	Amplified clarification between portfolio of evidence and evidence record	All	Development Team
1.2	31/01/24	Amendments to appendices	Appendices	Development Team
1.2	31/01/24	Amendments to indicative content	Appendix 2	Development Team

This EPA Handbook is for apprentices, employers and providers. It provides an overview of the end-point assessment, the assessment methods, the grading criteria etc. It is a reference document which will guide you through each stage of the process.

For further information about apprenticeship standards and Trailblazers please contact enquiries@openawards.org.uk

About Open Awards

Set up in 1981 as Open College Network North West Region (OCNNWR) and now trading as Open Awards, we have been in business for 40 years. During that time, we have helped thousands of learners get started on the education ladder, return to learning, achieve qualifications to help their careers and progress into further and higher education.

We were the first awarding organisation to design qualifications and courses based on credit accumulation so that learners could achieve in “bite sized” chunks. We designed the units and qualifications that became the basis of the Qualification and Credit Framework (QCF).

We are more than just another Awarding Organisation. Uniquely, we have deep roots in the education sector as forward-thinking organisations, FE Colleges and Local Authorities, created Open College Networks (OCNs) to promote education and achievement. We have a governance structure, which is drawn from the people who use our services – our providers and centres – so that we can truly say we are “of the sector and for the sector”. Our purpose is to meet the needs of our provider organisations and their learners. We are a not-for-profit organisation and a registered charity and we use our funds to invest in our products and services to support the very organisations that use our products.

Open Awards qualifications are approved by the regulators (Ofqual in England and CCEA in Northern Ireland) and are designed to meet the needs of learners and employers. The range of qualifications we offer is designed to meet the aspirations of learners who are seeking a stepping stone to their career, returning to learning or wishing to progress and build their skills and experience. We are constantly adding to our qualification portfolio to ensure that it is fresh and up to date.

We are delighted to have expanded our scope, becoming an end-point assessment organisation (EPAO) for a growing number of apprenticeship standards in England approved by the Institute for Apprenticeships and Technical Education (IfATE). Our EPAO number is: **EPA0565**

Occupational Overview

This Apprenticeship Standard covers two roles: Engineering construction erector and Engineering construction rigger. Both are vital Engineering Construction roles, working within strictly defined processes and procedures to exacting standards. This often involves working on major infrastructure projects in various sectors such as the power generation sector, which may use a range of different fuels including coal, gas, nuclear, wind and other renewable fuel sources; oil and gas refining; nuclear waste reprocessing; the processing and production of chemicals; pharmaceuticals; human and animal food; cosmetics; petrochemicals; sewerage, steel mill, the exploration and exploitation of oil and gas and the erection and dismantling and decommissioning of steel structures and engineering construction plant of varying sizes and complexity. Riggers and Erectors often work in hazardous environments which can include working at height, over water and in confined spaces. Riggers and Erectors must be able to work autonomously and as part of a team ensuring compliance with health, safety and environmental processes and procedures, this can involve working with other Engineering Construction occupations such as Maintenance Technicians, Platers, Pipefitters and Welders.

The Engineering construction erector role encompasses the installation and dismantling of the capital plant steel infrastructure which makes up engineering and construction projects, these operations are by nature complex and non-repetitive. The construction is achieved through the use of static and mobile moving and lifting equipment and accessories and as the assembly of the structure progresses, can involve the use of additional specialist access equipment. Erectors will use powered as well as non-powered hand tools to assemble the structure, this can also require the fixing of metal decking, safety netting and edge rails to facilitate safe working.

The Engineering construction rigger role encompasses the lifting, moving and positioning of loads during engineering construction projects. It involves but is not limited to the detailed planning and control of all the elements required to successfully and safely execute and complete the lifting, moving and positioning operation. Riggers are responsible for safely moving loads using static and mobile moving and lifting equipment and accessories. The moving and lifting equipment is diverse and can include specialist equipment such as skids and rollers as well as numerous types of winches, hoists and cranes of various sizes and design.

Further details on the knowledge, skills and behaviours associated within the occupational standard are in Appendix 1 and are also accessible on the IfATE website¹.

¹ <https://www.instituteforapprenticeships.org/apprenticeship-standards/engineering-construction-erector-rigger-v1-0>

Standard information

Level: 3

Reference: ST0433

Approved for delivery: 8 November 2018 (updated: 26 January 2023)

Route: Construction and the built environment

Typical duration to gateway: 36 months (this does not include the EPA period)

Employers involved in creating the standard: Doosan Babcock Ltd, Wood Group, Don Valley Engineering Company, Wright Brother Industrial Services Ltd, Archbell Greenwood Structures Ltd, GE Power Services, Severfield plc, Braddan Structures Ltd, Amec FW, NETA Training, AJ Structural Steels Ltd, Jacobs Field Services UK & Europe, Cordell Group Ltd, TEi.

External Quality Assurance Provider: Ofqual

Entry requirements

Individual employers will set their own criteria; typically, 3 GCSEs (or equivalent) at grade C or above, including English, maths and a science or technology-based subject.

Apprentices without level 2 English and maths will need to achieve this level prior to taking the end-point assessment.

Progression opportunities

Apprentices who successfully complete their Engineering Construction Erector Rigger Apprenticeship are likely to attain or be able to work towards roles such as: Engineering construction rigger and Engineering construction erector.

On-programme Requirements

A summary of the on-programme requirements for each apprentice is outlined below.

- Training to develop the knowledge, skills and behaviours (KSBs) of the occupational standard.
- the Level 3 Diploma in Engineering Construction Lifting, Positioning and Installing Structures, Plant and Equipment (RQF) – Erecting **OR** the Level 3 Diploma in Engineering Construction Lifting, Positioning and Installing Structures, Plant and Equipment (RQF) – Rigging
- Training towards English and mathematics Level 2, if required.
- Compilation of a portfolio of evidence to outline apprentices' work during their apprenticeship programme, mapped to the KSBs from the occupational standard.

Registration, Gateway and Booking

Registration with Open Awards

Registration is the point at which an employer signals that it has selected Open Awards as their end-point assessment provider. Employers are encouraged to register their apprentices with Open Awards, through the training provider, as soon as possible. Our EPAO number is: **EPA0565**

Registrations can be made by providers via the EPA Section of Open Awards' Secure Portal. Early registrations enable Open Awards to initiate early dialogue to ensure arrangements can be planned, such as IEPA availability, to ensure end-point assessment is delivered as smoothly as possible in a timescale that supports the employer's planned gateway date. It also enables the training provider to access a range of practice and preparation materials, so they and the employer can support the apprentice prepare for end-point assessment.

Please note that Open Awards are only able to accept registrations from training providers who are currently on the apprenticeship provider and assessment register (APAR).

In line with the Education & Skills Funding Agency's (ESFA) requirements, the employer must inform Open Awards of the planned gateway and end-point assessment dates **at least three (3) months in advance**.

Gateway

Gateway is the point at which the employer reviews their apprentice's knowledge, skills and behaviours, and formally confirms the apprentice has reached occupational competency, completed all the mandatory elements of their apprenticeship programme and are ready for end-point assessment. The training provider may support the employer in making this decision, but the decision is made by the employer, with the apprentice also confirming they are ready for end point assessment.

End-point assessment must be completed by an independent End-point Assessment Organisation (EPAO) selected by the employer, such as Open Awards, from the ESFA's Register of End Point Assessment Organisations (RoEPAO).

The end-point assessment period should only start, and the end-point assessment arrangements confirmed, once the employer is satisfied that the apprentice is consistently working at or above the level of the occupational standard, all of the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to Open Awards. For this standard, end-point assessment will usually occur in the final 6 months of their Apprentice programme between the 36 – 42 month point. It is not to exceed 60 months.

Gateway Requirements

The training provider must provide Open Awards with all required evidence to enable Open Awards to undertake the necessary gateway checks. This evidence includes:

- a fully completed and signed Gateway agreement and authenticity form.
- Apprentices must have achieved English and mathematics at Level 2. The ESFA maintains a list of current and prior qualifications accepted as meeting the minimum English and maths requirements for apprenticeships at Level 2 and above. The most current list can be found on the ESFA website². For those apprentices with an education, health and care plan or a legacy statement the apprenticeships English and mathematics minimum requirement is Entry Level 3 and British Sign Language qualifications are an alternative to English qualifications for whom this is their primary language.
- apprentices must have completed the minimum apprenticeship on-programme duration (minimum 12 months from the start date)
- achievement of the following required qualifications:
the Level 3 Diploma in Engineering Construction Lifting, Positioning and Installing Structures, Plant and Equipment (RQF) – Erecting **OR**
the Level 3 Diploma in Engineering Construction Lifting, Positioning and Installing Structures, Plant and Equipment (RQF) – Rigging
- for this standard, apprentices are also required to have completed a portfolio of evidence.

Open Awards cannot accept end-point assessment booking requests until the gateway checks have been satisfactorily completed, so failure to submit all the necessary information or evidence will delay this process. Open Awards will contact the training provider if the information or evidence is missing or insufficient, so that this can be rectified as quickly as possible. Open Awards aims to complete gateway checks **within five (5) working days** from receipt of the gateway declaration and authenticity form, subject to provision of all necessary information and ancillary evidence.

Once gateway checks have been successfully completed, Open Awards will confirm provisional bookings or schedule subsequent bookings.

² <https://www.gov.uk/government/publications/english-and-maths-requirements-in-apprenticeship-standards-at-level-2-and-above>

Booking

Bookings can be made by providers via the EPA Section of Open Awards' Secure Portal. As per ESFA guidance, Open Awards requires at least three (3) months advance notice of the potential gateway date. However, training providers may make provisional bookings at any point following Open Awards acceptance of an apprentice registration.

Open Awards will endeavour to accept and schedule bookings for end-point assessment to meet the expressed preference dates of the employer wherever possible. However, any provisional booking cannot be confirmed or scheduled by Open Awards until gateway checks have been successfully completed. The exception is the online knowledge test when five (5) working days' notice is required.

Cancelling or Rescheduling a Booking

Provisional bookings can be re-scheduled or cancelled by providers via the EPA Section of Open Awards' Secure Portal. Confirmed bookings **up to 10 workings days** before the assessment day can be re-scheduled at no charge. Confirmed bookings cancelled or re-scheduled with **less than 10 workings days'** notice will incur a charge in line with Open Awards fees policy³.

Assessment Plan Version

Open Awards will undertake end-point assessment in line with the requirement of the current version of the assessment plan or in line with IfATE directions. Training providers and employers must contact Open Awards to discuss any instance where they believe it is appropriate for assessment to be undertaken in line with a historic/previous version of the assessment plan. Because Open Awards may need to liaise with either IfATE or the External Quality Assurance Provider to determine whether this is allowable, training providers and employers should be aware this may delay the ability of Open Awards to undertake end-point assessment until resolved.

³ Available on the Open Awards Secure Portal <https://portal.openawards.org.uk/Login.aspx>

Portfolio of Evidence

Apprentices on this standard are required to produce a portfolio of evidence drawn from their on-programme activities and submit this at gateway. This portfolio will subsequently be used to inform and complete their evidence record post-gateway. Therefore, apprentices, providers and employers must consider the requirements for the evidence record when selecting content for the portfolio of evidence.

Open Awards preferred format is an electronic portfolio either uploaded by the training provider to their Open Awards SharePoint folder, or else a login provided to enable Open Awards to access the portfolio. Training providers should contact Open Awards to discuss alternative arrangements, e.g., where a paper-based or mixed portfolio is developed.

The portfolio will typically contain 12 discrete pieces of evidence which should be mapped against the KSBs using the portfolio reference sheet (*ST0433-PRS*). Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include:

- workplace documentation/records, for example workplace policies/procedures, records
- witness statements
- annotated photographs, project documents, blogs, press articles
- video clips (maximum total duration 20 minutes); the apprentice must be in view and identifiable
- feedback from colleagues and/or clients.

This is not a definitive list; other evidence sources are possible. However, the portfolio must clearly include the last the last three (3) erecting or rigging tasks completed by the apprentice.

The portfolio should NOT include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions. The evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a completed Portfolio authenticity statement (*ST0433-PAS*) confirming this.

Mock assessment activities are NOT considered acceptable evidence to be included within the portfolio.

Portfolio Submission

The portfolio must be submitted at gateway alongside the gateway evidence. Because the portfolio must be completed as a gateway requirement, all evidence must be generated and dated pre-gateway. No post-gateway dated evidence can be included as it will be considered invalid.

Where invalid evidence is included within the portfolio, the content requirements are not met, or the evidence is not authenticated, the portfolio will be returned by Open Awards to the apprentice, via the training provider, for amendment and subsequent resubmission. Resubmitted portfolios must be submitted to Open Awards to enable the gateway checks to be completed.

Evidence Record

Apprentices on this standard are required to produce an evidence record drawn from their on-programme workplace portfolio of evidence. This will be produced post-gateway and must be submitted to Open Awards within **two (2) months of the gateway**. Open Awards preferred format is an electronic evidence record either uploaded by the training provider to their Open Awards SharePoint folder, or else a login provided to enable Open Awards to access the evidence record. Training providers should contact Open Awards to discuss alternative arrangements, e.g., where a paper-based or mixed evidence record is developed.

Apprentices should select their best possible evidence to reflect their current level of proficiency against the standard. This must include photographic evidence of the last three (3) erecting or rigging tasks completed by the apprentice in addition to any courses they attended. The IEPAs on the interview panel will use this evidence record as a basis for selecting the questions for the interview, drawn from an Open Awards developed and maintained question bank.

The evidence record is not assessed and will only be used to support the technical interview. However, where the content requirements are not met, or the evidence is not authenticated, the evidence record will be returned by Open Awards to the apprentice, via the training provider, for amendment and subsequent resubmission. This resubmission will not normally be considered as an assessment attempt. Resubmission of the evidence record will not constitute either a resit or retake of the technical interview. However, this may delay completion of the technical interview, so training providers and employers are encouraged to support the apprentice to ensure the evidence record requirements are met before submission.

However, where an evidence record meeting the content requirements is not submitted within the allowed timescale, the assessment method may be recorded as a fail and the technical interview treated as a resit/ retake.

Open Awards have developed documentation to support apprentices, training providers and employers to meet the evidence record content requirements. This documentation is available from the Open Awards Secure Portal:

ST0433-ERAS	Evidence Record Authenticity Statement – Completion of this is a mandatory requirement.
ST0433-ERT	Evidence Report Template – Completion of this is a mandatory requirement.

The evidence report shows the evidence requirements within the assessment plan have been met; however, Open Awards will accept any alternative equivalent approach demonstrating that the evidence report content and structure requirements have been met. The form may also help the independent end-point assessor (IEPA) prepare for the technical interview by giving apprentices the opportunity to signpost to where they believe appropriate evidence may be found.

Evidence Record Content and Structure

The evidence record must:

- be compiled post-gateway and submitted within **two (2) months** of the gateway
- contain evidence related to the KSBs assessed by this standard
- include photographic evidence of the last three (3) completed erecting or rigging tasks
- include any courses the apprentice attended.

Evidence may be used to demonstrate more than one KSB. The document **ST0433-ERT** can be downloaded from the Open Awards Secure Portal; this should be used to map on-programme evidence against the relevant KSB statements demonstrated as set out in the standard. All KSB statements should be demonstrated.

The evidence record will not be assessed by Open Awards, other than to ensure the content requirements have been met. Nor will Open Awards provide feedback on evidenced work, but will be used by the IEPAs on the interview panel to prepare for the apprentice's technical interview.

The evidence record can be made up of a collection of evidence in a variety of formats, including written, audio and video. Sources may include:

- workplace documentation/records for tasks and projects that the apprentice has directly worked on, for example
 - Projects managed by the apprentice
 - Relevant workplace policies/procedures
- witness statements
- annotated photographs
- GDPR and safeguarding compliant video clips (maximum total duration 20 minutes); the apprentice must be in view and identifiable
- annotated photographs of the apprentice carrying out relevant tasks
- reports, minutes, action logs
- observations by the apprentice's manager or mentor
- feedback (managers and peers)
- performance reviews.

All evidence must refer to activities undertaken and dated pre-gateway.

Authenticity of Apprenticeship Work

The evidence provided must be valid and attributable to the apprentice. The evidence record must be submitted with a statement from the employer and apprentice confirming this (document **ST0433-ERAS**).

What to Avoid

Mock assessment activities are NOT considered acceptable evidence to be included within the submitted evidence record. The evidence record should also NOT include reflective accounts or any methods of self-assessment **unless** this is part of the KSB being assessed, i.e., a KSB criterion directly indicates reflective practice knowledge and/or skills. Any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions.

Identification checks

Open Awards requires the apprentice to present photographic identification to an Open Awards invigilator or IEPA immediately prior to each assessment on each assessment day. This is a requirement to ensure Open Awards can confirm an individual completing an assessment is the person they are claiming to be.

The following are acceptable forms of evidence of an apprentice's identification:

- a valid passport (any nationality)
- a signed UK photo card driving licence
- valid warrant card issued by HM Forces or the Police
- other photographic ID card, e.g., employee ID card (must be current
- employer), student ID card, travel card
- UK biometric residence permit.

Where this identification is not available to be checked, the assessment will not be allowed to commence.

Where an apprentice does not have access to the necessary identification or where the name on the identification does not match the name registered with Open Awards, the training provider must contact Open Awards to make arrangements for alternative or additional authentication checks to be made.

Data management

Open Awards has a responsibility under the Data Protection Act to ensure that learners and apprentices are informed of how their information is processed and shared.

Open Awards collects and processes personal learner information for the purpose of: registering learners and apprentices, and awarding learner and apprentice achievements; exercising its functions; and meeting its responsibilities, both statutory and otherwise.

Further information on the personal data and information shared with Open Awards and how we use it and who we share it with can be found in the Privacy Notice: Learner Information which is on the Open Awards website⁴.

Whilst we endeavour to collect only that data for which there is a legal or sound business requirement and to ensure the integrity of the data, we strongly encourage customers to contact us if you believe any data to be incorrect.

Any concerns can be sent to Open Awards by emailing enquiries@openawards.org.uk

In compliance with ESFA Conditions for being on the register of end-point assessment organisations, Open Awards must retain information about the EPAs undertaken and payment received for six (6) years after the activity took place. This will include details of what assessments were undertaken, against which versions of the standard and assessment plan, when and by whom, along with assessment outcomes and evidence of the internal quality assurance of those assessments. Open Awards is also required to share end-point assessment information with the External Quality Assurance Provider to ensure they are able to undertake their regulatory role. The External Quality Assurance Provider for this standard is Ofqual.

For the purposes of the Data Protection Act and General Data Protection Regulation (GDPR) 2018, Open Awards is the data controller for personal information processed by the organisation.

⁴ <https://openawards.org.uk/centres/policies-and-procedures/>

Assessment

The EPA consists of three assessment methods (Elements) which are individually graded.

- Element 1: Knowledge test
- Element 2: Practical assessment
- Element 3: Technical interview

Assessment Preparation

A sample knowledge test (for both pathways) is available to support training providers and employers post-gateway to ensure apprentices are well prepared for their EPA experience. They are not intended to be used to measure proficiency pre-gateway or to support gateway decisions. These materials are accessible to training providers through the Secure Portal.

Assessment specifications and assessment records are also available to support training providers and employers post-gateway to prepare Apprentices.

Order of Assessment Methods

The elements can be delivered in any order as long as Element 3: Technical Interview is delivered last.

Assessment Window

EPA assessment components must be undertaken within a period of six months from the gateway.

Element 1: Knowledge Test

Overview

This is a computer-based test which will be undertaken online. This may be invigilated at the test premises or remotely invigilated by Open Awards. It is a closed book test so the apprentice may not use or refer to any books, notes or other materials during the test. Apprentices have 90 minutes maximum to complete the 50 multiple-choice questions in which they will demonstrate the KSBs assigned to this assessment method.

These consist of:

- 36 will be core-related
- 14 option-related knowledge questions (Rigger or Erector).

Each of the 50 multiple-choice questions will have four possible answers, of which only one is correct scoring 1 mark each.

Any incorrect or missing answers must be assigned zero (0) marks. The total number of marks available for the knowledge test is 50.

The Apprentice will be awarded a percentage mark, which will equate to either a fail, pass, merit or distinction grade. The grade for this element will be combined with grades for the other two elements to make up the final overall grade.

Preparing for the Knowledge Test

The apprentice may be booked in for the knowledge test as soon as Open Awards have confirmed that the Apprentice has successfully passed through Gateway. The apprentice may be provided with the sample knowledge test in order to familiarise themselves with the nature and style of the test and the questions which cover the same knowledge areas as their live test. The sample knowledge test will consist of 36 core-related knowledge questions, 14 Erector-related questions & 14 Rigger-related knowledge questions.

Assessment Conditions

The knowledge test will consist of 50 multiple choice questions delivered online in a strictly controlled environment and in the presence of an invigilator or web proctor in line with Open Awards remote invigilation policy.

Element 2: Practical assessment

Overview

The primary purpose of this element is to ensure the Apprentice can competently demonstrate the skills required to perform their job role. This element will also measure some of the underpinning knowledge and, to a certain extent, behaviours required to perform their job role.

The IEPA will observe the apprentice working in their usual working environment, carrying out a range of normal work activities which will include moving loads or erecting tasks dependant on the apprentice's elected pathway. The apprentice must work to the tolerances and specifications stated in an engineering specification to complete a given erecting or rigging task.

For **erectors**, the assessment will involve the use of steel assemblies of multiple shapes and different sizes, including but not limited to:

- steel beams
- columns
- bracings
- rafters
- cold rolled steel work.

For **riggers**, the assessment will involve the use of irregular shaped unevenly weighted loads such as:

- pipe spools
- steelwork
- motors
- pumps
- valves
- pipe bundles.

The assessment can be chosen from three (3) specifications provided by Open Awards which will be of comparable complexity. During the assessment the assessor can question the Apprentice to ascertain the breadth and depth of their underpinning knowledge.

The IEPA will observe the apprentice carrying out these activities and record evidence that meets the KSB grading criteria shown in the Practical Assessment - Assessment Record relevant to this End-point assessment method. Evidence of the following elements are included:

- relevance, sufficiency and completeness of the apprentice's work
- quality of the observed apprentice's performance during activities
- quality of the apprentice's answers to any IEPA questions.

Preparing for the Practical Assessment

The employer must discuss scheduling an IEPA for the practical assessment along with the other assessment components with Open Awards delivery team to ensure time windows and resources can be reasonably allocated to meet the needs of all parties.

Open Awards expects the observation will be conducted in the apprentice's normal working environment to take account of the occupational context in which the apprentice operates. The employer is responsible to provide the resources and availability for the practical activities.

The IEPA will always attend the observation and question session in person, unless this is not possible due to restrictions imposed by the venue (e.g., with a secure estate or specific health settings). In these exceptional circumstances, agreement for a video recording of the session to be submitted may be approved by Open Awards, subject to confidentiality and GDPR legal requirements. Where these exceptional circumstances exist, Open Awards expects to be informed prior to the gateway to be able to make an informed decision as to whether the proposed observation activity is appropriate. Where a video submission is approved arrangements will be made for it to be viewed by the IEPA alongside the apprentice, to replicate the observation process. Questions can then be defined for clarification in the same way as they would be after a normal, in person observation.

Assessment Conditions

The practical observed assessment will be delivered in a strictly controlled environment by an independent end-point assessor (IEPA). The practical assessment will take **8 hours** per apprentice. The practical assessment may be conducted over a number of discrete sessions completed over a maximum of **2 days**. Where breaks occur, they will not count towards the total assessment time.

The IEPA has the discretion to increase the overall assessment time by up to 10% (i.e., **48 minutes**), but only to allow the apprentice to complete activities, or to complete answers to IEPA questions. The IEPA will **not** inform the apprentice whether they have additional time or how much additional time may be available. The apprentice should **not** assume that they will receive any additional time.

Observation of the practical assessment may be undertaken on a group basis, provided the apprentices within that group are being assessed on the same pathway. This is for safety reasons, so in cases like this the team must consist of a minimum of three (3) Erectors/Riggers dependent upon pathways being assessed. If apprentices are not undertaking the practical assessment on a group basis, the IEPA will assess that apprentice individually. This must be discussed and agreed with Open Awards at gateway so that IEPAs can visit the site apprentices will use for their practical assessment to determine its suitability. During the practical assessment, the IEPA may ask the apprentice relevant questions and they must be non-obtrusive to the work itself, i.e., they must observe the apprentice carrying out the work and only ask questions at suitable points during the apprentice's work that will **not** interrupt or influence their work.

During the assessment the IEPA can question the Apprentice to ascertain the breadth and depth of their underpinning knowledge, skills or behaviours. The questions are chosen or adapted from a question bank developed and maintained by Open Awards. Open Awards will provide training and guidance for IEPAs on how to select the most relevant questions and how flexible they can be in amending the questions or asking follow up questions in order to best draw out the apprentice's knowledge, skills and behaviour. IEPAs must ensure that apprentices have the opportunity to demonstrate their knowledge, skills and behaviours at the highest available grading point for each KSB criterion or set of KSB criteria.

Element 3: Technical Interview

The technical interview takes place after successful completion of the knowledge test and practical assessment with a panel of **two (2)** independent assessors. It is designed to enable the apprentice to demonstrate how they have combined their skills, technical knowledge and behaviours in order to carry out their occupational role effectively and safely. The apprentice should expect to discuss evidence of their work as recorded in their **Evidence Report**, compiled from job related tasks so the panel can ascertain the apprentice's role in completing the work and what, if any barriers they overcame etc. It is a rigorous interview and should assess the apprentice's readiness to work as an Engineering Construction Erector or Rigger.

The technical interview will allow the Apprentices to evidence where they have demonstrated the core and role specific knowledge and skills as specified in the Erector/Rigger standard for their given job role however the focus will be on the behavioural requirements as shown in the Assessment Specification.

The technical interview will be managed and delivered by one of two independent end-point assessors (IEPAs) on the interview panel. The apprentice will have a two-way dialogue with the IEPAs on the interview panel. The discussion-based approach enables the IEPAs to consider how the apprentice has performed, as well as assess their analytical reasoning and decision making abilities.

The IEPA will draw on appropriate evidence from the apprentice's evidence record to underpin the discussion. The evidence record itself will not be assessed, but it must meet a minimum level of quality to enable the technical interview to take place.

Preparing for the Technical Interview

Post-gateway the apprentice will be given **two (2) months** to complete the evidence record in advance of the scheduled interview. In this evidence record it is expected that the apprentice will identify and expand on examples of evidence of application of the skills, technical knowledge and behaviours (drawn from **the last three (3) examples** of completed Erecting or Rigging tasks) as applicable in the workplace taking into account the content of the Engineering Construction Erector/Rigger standard.

A copy of the evidence record is retained by the interview panel as evidence that the Apprentice understands the required standards of workplace performance and behaviours.

The Evidence Record must include photographic evidence of the last 3 erecting or rigging tasks completed in addition to any courses attended. The IEPA will use this record as a basis for selecting the questions for the interview, drawn from an Open Awards developed and maintained question bank.

The IEPAs will conduct a thorough review of the apprentice's submitted evidence record in order to plan and structure the technical interview. To do this, IEPAs will draw on the training and guidance provided by Open Awards. IEPAs will also use a question bank prepared and maintained by Open Awards. The apprentice must be given at least **five (5) working days'** notice of the date and time of the professional discussion.

Assessment Conditions

The technical interview will be undertaken on a two-to-one basis between the IEPAs on the interview panel and the apprentice. The duration of the technical interview will be **90 minutes**. However, the IEPA can increase the overall time by up to **10 minutes**, but only to allow the apprentice to complete the answer they are giving. The IEPA will **not** inform the apprentice whether they have additional time or how much additional time may be available. The apprentice should **not** assume that they will receive any additional time.

In circumstances where it is difficult to undertake a technical interview at the employer's or provider's premises, it can be undertaken remotely through video conferencing (e.g., MS Teams or Zoom). Further details of this option are available from Open Awards. The assessment records will be filled out during the interview and then retained by the panel.

As the professional discussion only involves the apprentice and the IEPAs, neither the employer nor provider are required to attend.

Grading

Mapping of KSBs against assessment methods

Appendix 1 shows each assessment method and the KSBs from the apprenticeship standard that are assessed by that method. Additionally, Appendix 2 details the breakdown of the KSBs assessed in each of the key areas within each EPA method and their associated grading criteria.

Grading individual assessments

Knowledge Test

Apprentices must score 85% and above to gain a Distinction

Apprentices must score 70% - 84% to gain a Merit

Apprentices must score 60% - 69% to gain a Pass

Practical Assessment & Technical Interview

Apprentices must meet **all** the pass criteria to gain a pass for each End-point assessment method.

Apprentices must meet **all** the merit criteria to gain a merit for each End-point assessment method.

Apprentices must meet **three (3)** of the distinction criteria to gain a distinction for each End-point assessment method.

Aggregation of Individual Assessment Grades into an Overall Grade

Performance in the EPA will determine the apprenticeship grade of fail, pass, merit or distinction.

To get an overall Distinction the apprentice must get a distinction in all three assessment methods.

To get an overall Merit the apprentice must get a merit or above in all three assessment methods.

To get an overall Pass the apprentice must get a pass or above in all three assessment methods.

Reasonable Adjustments and Special Considerations

Open Awards is committed to ensuring access to fair assessment for all learners and to protecting the integrity of assessments and qualifications.

There may be circumstances whereby arrangements need to be made to take account of particular learners' requirements in order to ensure that this is achieved without giving any unfair advantage over other learners.

The Reasonable Adjustments and Special Considerations Policy and Procedures, sets out the principles which should be followed when making decisions about adjustments to assessment. It outlines Open Awards' reasonable steps to ensure it avoids disadvantage (directly or indirectly) in line with the requirements of The Equality Act 2010 (Disability) Regulations 2010. The policy and procedures are accessible through the Open Awards Secure Portal.

Reasonable Adjustments

Any action that helps to reduce the effect of a disability or difficulty that places a learner at a substantial disadvantage in the assessment situation. Reasonable adjustments are adjustments made to an assessment for a qualification so as to enable a disabled learner to demonstrate his or her knowledge, skills and understanding to the levels of attainment required by the specification for that qualification.

Reasonable adjustments must not affect the reliability or validity of the assessment outcomes but may involve:

- changing the usual assessment arrangements, e.g., allowing a learner extra time to complete an assessment activity
- adapting assessment materials e.g., by providing large print or providing materials in Braille
- providing assistance during an assessment e.g., by providing a trained signer, interpreter or a reader
- changing the assessment method e.g., from a written assessment to a spoken assessment
- using assisted technology such as screen reading or a voice activated software.

Reasonable adjustments must be approved and set in place before the assessment takes place. The work produced by the learner will be assessed in the same way as all other learners.

Where the employer and training provider believe reasonable adjustment(s) may be required, this can be identified at the registration stage. Open Awards requires a minimum of 90 days' notice of any request for reasonable adjustments so this can be considered and where approved, arrangements made.

Special Considerations

Adjustments which may be applied after an assessment where the learner has encountered exceptional circumstances that have disadvantaged them during their assessment.

The assessment plan for the apprenticeship standard defines permissible special considerations and the circumstances surrounding the apprentice's End-point assessment that fall within this definition.

Cancellations or Rescheduled Assessments

Cancellation by the Apprentice, Training Provider or Employer

Provisional bookings can be re-scheduled or cancelled at no charge. Confirmed bookings can be re-scheduled at no charge **up to 10 workings days** before the assessment day.

Confirmed bookings cancelled or re-scheduled with **less than 10 workings days'** notice will incur relevant costs associated to the booking.

The 5% apprentice registration fee is non-refundable regardless of withdrawal date.

Cancellation by Open Awards

In the unlikely event that a confirmed booking has to be cancelled by Open Awards, it will be rescheduled as soon as possible for a mutually convenient time. There will be no additional charges associated with the rescheduled assessment.

Confirmation of Results

Assessment results will be made available to providers via the EPA Section of Open Awards' Secure Portal. Results of assessment will normally be provided to the training provider **within 10 working days** of the assessment being undertaken. The exception to this is the online knowledge test where the result notification will normally be provided **within 72 hours** of the assessment taking place.

Resits and Retakes

Open Awards provides resit and retake opportunities in line with ESFA requirements unless the assessment plan associated with the apprenticeship contains alternative requirements.

Apprentices who fail one or more assessment method will be offered the opportunity to take a resit or a retake. Open Awards will provide feedback alongside the result notification to all apprentices who fail an assessment method. This feedback will be provided via the training provider, normally **within 10 working days** of the assessment taking place. The exception to this is the online knowledge test where only the result notification will be provided and this will normally be **within 72 hours** of the assessment taking place.

Where the result notification suggests a retake may be appropriate, the ESFA recommend the employer and training provider consider a supportive action plan that responds to the performance weaknesses identified within the feedback. This action plan should clearly state the nature and extent of the re-training and include the estimated time to prepare the apprentice for the retake. When a retake is booked, Open Awards will require confirmation from the training provider that the apprentice has received further training and is ready to be assessed.

A resit involves the apprentice attempting one or more failed assessment components again, without the need to undertake further training.

Open Awards normally require a **minimum of 10 working days'** notice when booking a resit or a retake. The exception is the online knowledge test when **five (5) working days'** notice is required.

The number of resits and retakes that can be taken by an apprentice will normally be at the discretion of the employer. The ESFA recommends a limit of two (2) resits or retakes, however, more than two (2) resits or retakes may be taken if available, or unless otherwise specified or limited within the assessment plan.

Resits or retakes are only to be taken in the event of a failure. A resit or retake cannot be taken with the intention of increasing the original grade if an apprentice

has passed their EPA. Therefore, feedback will not normally be provided to apprentices who achieve a pass or higher.

The maximum grade that can be achieved for a resit or retake is a pass, unless Open Awards has determined there are exceptional circumstances. Where an apprentice believes exceptional circumstances impacted on their initial assessment attempt, they must submit a formal request with supporting evidence for exceptional circumstances to be considered, directly to Open Awards **within five (5) working days** of receiving the assessment decision.

The same IEPA who undertook the initial assessment attempt may be allocated by Open Awards to assess an apprentice's resit or retake. This may be a requirement of the assessment plan. The allocation of IEPAs to assessments will be taken by Open Awards based upon the requirements of the assessment plan or operational considerations.

Appeals and Complaints

Open Awards is committed to ensuring that all assessment decisions are consistent, fair and based on valid judgements made by independent IEPAs.

If an apprentice is satisfied with their result but seeks information as to why a specific grade was awarded, they can request formal feedback through their training provider. This feedback will be limited to justification of the decision and will not be developmental in nature (i.e., indicate how they may have achieved a higher grade). This feedback may take **up to 20 working days** to be provided. Further details are available from Open Awards.

If an apprentice is not satisfied with their result, they can request an enquiry about results which is an informal appeal. Open Awards will review the documentation for administrative errors and correct these if identified. An enquiry about results must be made by the apprentice **within 10 working days** of notification of the results concerned.

Alternatively, or subsequent to an enquiry about results, if an apprentice is not satisfied with their result, they may lodge an appeal. Appeals can be made by the training provider on behalf of the apprentice, but they must have the permission of the apprentice to do this.

Appeals made in respect of the final overall grade will result in a delay to the completion certificate being requested by Open Awards. For further details regarding the process, timelines and fees, please refer to Open Awards' Enquiries and Appeals Policy and Procedures which can be found on the Portal.

Completion and certification

Open Awards will issue a summary of results following successful completion of all EPA assessments. This will be issued to the apprentice via the provider and show the grade associated with each assessment, alongside the overall grade and the date this was awarded.

Open Awards will also request the apprenticeship completion certificate from the IfATE on behalf of an apprentice once they have completed their apprenticeship. As part of the gateway declaration form an apprentice is required to give Open Awards permission to do this on their behalf. Without this permission Open Awards is unable to claim the certificate.

Open Awards will request the certificate once the apprentice has received and agreed the final grade. Where the apprentice does not formally agree the final grade, Open Awards will assume it is agreed once the window for an enquiry about results or appeal is extinguished (**10 working days** from the notification of results).

Requests for the certificate are then made **within 20 working days** and in most instances, sooner. IfATE normally send the completion certificate directly to the employer by recorded delivery; this can take **up to 15 working days** to arrive from the date it is requested.

Quality Assurance

Internal Quality Assurance

Quality assurance is at the heart of Open Awards' practices and we follow suitably rigorous processes to ensure that the integrity of our assessments is maintained.

Internal quality assurance is the process of reviewing and evaluating assessment practices and decisions to ensure that:

- an identified individual is responsible for coordinating internal quality assurance processes
- there are clear and documented roles and responsibilities for all those involved
- all learners are assessed accurately, fairly and consistently to the right standard
- internal quality assurance is structured and incorporates all of the requirements set out in the assessment plan associated with the apprenticeship standard
- assessment tasks and learner work are sampled appropriately
- good practice is promoted through internal standardisation events and quality assurance meetings
- decisions are supported by full and clear records and action plans that are followed
- internal processes are transparent and regularly evaluated.

External Quality Assurance

External quality assurance for this apprenticeship standard is undertaken by Ofqual.

Maladministration and Malpractice

Maladministration is defined as any activity, neglect, default or other practice that results in an apprentice, training provider or employer not complying with the specified requirements for delivery of end-point assessment.

Malpractice is any act, default or practice which:

- compromises, attempts to compromise, or may compromise, the process of assessment/ examinations, the integrity of any end-point assessment activity or the validity of an assessment result or certificate, including maladministration
- damages the authority, reputation or credibility of Open Awards or any officer or employee
- involves a failure by an apprentice, training provider or employer to provide Open Awards with such necessary information as required to enable it to investigate allegations of suspected malpractice also constitutes malpractice.

An apprentice, training provider or employer must report any allegation of suspected malpractice/ maladministration to Open Awards. Failure to report allegations of malpractice/ maladministration can lead to assessment results not being conferred and certification claims not being processed, and future registrations not being accepted.

Further information is available within Open Awards' Malpractice and Maladministration Policy and Procedures, including how Open Awards will manage alleged or suspected malpractice or maladministration.

Where Open Awards is satisfied on the balance of probabilities that an allegation is substantiated, it reserves the right to impose a range of sanctions on an apprentice and/ or training provider and/ or an employer, depending on the seriousness of the situation and the risk to the interests of learners and the integrity of the end-point assessment and the effect on public confidence in Open Awards. Further information can be found within Open Awards' Sanctions Policy.

Open Awards will ensure that in most cases alleged malpractice is kept confidential between itself and those directly impacted. However, in cases of serious malpractice, Open Awards may exchange information with the regulators, other end-point assessment organisations and other appropriate authorities.

Open Awards Policies and Procedures

Current versions of the following Open Awards policies and procedures, relevant to end point assessment are accessible to training providers through the Secure Portal. Employers and apprentices can obtain copies from the relevant training provider, or can be obtained directly by contacting Open Awards.

- End Point Assessment Pricing Policy
- Reasonable Adjustments and Special Considerations Policy
- Data protection
- Enquiries and Appeals Policy and Procedures
- Complaints Policy
- Malpractice and Maladministration Policy and Procedures
- Equality and Diversity Policy
- Sanctions Policy
- Safeguarding Policy
- Conflict of Interest Policy
- Fair Access policy

In addition, the current version of the following relevant document may be obtained by training providers, employers or apprentices by contacting Open Awards directly:

- Instructions for Conducting Controlled Assessment Remotely

Open Awards recommends that local copies of policies and procedures are not made and referred to as these may not be current.

Fees and Charges

Open Awards standard fees and charges for end-point assessment, including resits and retakes are set out the schedule of fees. The current schedule can be found on the Open Awards' website.

Support

The Open Awards website www.openawards.org.uk is the best source for general information with full listings of our qualifications, news, events, assessment information, policies, and details of our support services.

In addition, our experienced customer service team can be contacted on 0151 494 2072 or via email enquiries@openawards.org.uk.

Glossary

Assessment	The process of making judgements about the level of occupational proficiency an apprentice can demonstrate when measured against the knowledge, skills and behaviours set out in the standard.
Assessment Criteria	Assessment criteria describe what a learner should be able to do in order to demonstrate competence (i.e., pass).
Authentic	Evidence must be the apprentice's own work.
Completion certificate	The certificate issued by IfATE which demonstrates an apprentice has successfully completed their apprenticeship.
Diversity	Acknowledging that each individual is unique and recognising individual differences, e.g., culture, ability, gender, race, religion, wealth, sexual orientation, or any other individual characteristic.
EQA	External Quality Assurance.
Equality	Fair treatment for all regardless of differences, e.g., culture, wealth, race, gender, ability, sexual orientation or any other group characteristic.
Evidence	How an apprentice demonstrates knowledge, skills or behaviour that can be used to make a judgment of achievement against criteria.
Fair	Ensuring that everyone has an equal chance of getting an objective and accurate assessment.
Gateway	The point at which the employer decides the apprentice is occupationally competent and ready to undertake end-point assessment.
Holistic	Holistic assessment is identifying how evidence can relate to and be cross referenced to other units rather than taking a unit by unit approach.
Independent assessment	Assessment decisions made by an IEPA and end-point assessment organisation who have no relationship with the apprentice, training provider or employer and therefore, have no interest in the assessment result.
Independent end-point assessor (IEPA)	The individual recruited and trained by the Awarding Organisation who assesses the apprentice during end-point assessment.
IQA	Internal Quality Assurance.
Learning Outcomes	Learning outcomes describe what an apprentice should know and understand by the end of a unit.

Reliable	Reliable evidence indicates that the apprentice can consistently perform at this level. A reliable method of assessment will produce consistent results for different IEPAs at each assessment.
Simulation	Where simulation is allowed it must replicate working activities in a realistic workplace environment. A realistic working environment is one which replicates what is likely to happen when an individual is carrying out their normal duties and activities at their employer's premises.
Sufficient	Enough evidence as specified in Evidence Requirements or Assessment Strategy.
Valid	Evidence must be relevant to the learning outcome and assessment criteria i.e., capable of measuring the knowledge or skills in question. For example, a written test cannot measure a candidate IEPA's ability to provide feedback to learners.
XAMS	The Open Awards platform used for online assessments and tests.

Appendix 1 Map of KSBs Against Assessment Methods

Element 1: Knowledge Test

KSBs	Apprenticeship standard descriptor (knowledge)
K1	How to work safely, maintain personal site safety responsibilities, work place relevant health, safety and environmental legislation, safe working practises and procedures and how to respond to and provide solutions to problems and emergencies.
K2	When to seek assistance from others without causing undue disruption to normal work activities.
K3	Applicable lifting/equipment regulations, and codes of practice including company/client and local site/project requirements.
K4	The importance and benefits of recognised Industry safety passport schemes.
K5	Lifting/moving operation roles, responsibilities and reporting chains.
K6	Engineering practices and principles including the reading/interpretation of engineering drawings and specifications.
K7	Hazards and risks that can arise from the moving, lifting and positioning of loads/structures.
K8	Risk assessments, method statements, lift plans and permit to work systems.
K9	Application and purpose of static and mobile craneage.
K10	Specialist equipment required to access and execute Rigging and Erecting activities.
K11	How to correctly select and safely use hand tools, mechanical tools, moving and lifting equipment and accessories.
K12	Lifting, moving and handling equipment methods and techniques.
K13	Methods and techniques used to determine the weight and characteristics of the load/structure.
K14	Slings, lifting, communication and signalling methods and techniques.
K15	Route and lift planning methods and techniques.
K16	The types of equipment and accessories used for moving, lifting, positioning and erecting loads/structures and their care, control procedures and inspection.
K17	Methods of providing temporary support of the load/structure during installation/dismantling operations.
K18	Methods of moving/transferring loads/construction elements through complex routes/processes using various orientations, multiple attachment points and equipment/accessories.

Rigger Specific Knowledge	
K19	The recognised techniques for moving/transferring loads through complex routes using differing orientations, numerous attachment points and equipment/accessories.
K20	The tools and equipment required for the installation/removal of loads.
Erector Specific Knowledge	
K21	Methods of moving/transferring steel sections/construction elements through complex processes using various orientations, multiple attachment points and equipment/accessories.
K22	Methods and techniques used for the erection and dismantling of capital plant steel structures.
K23	The hand/mechanical tools and equipment used for the erecting/dismantling of capital plant steel structures.

Element 2: Practical Assessment

KSBs	Apprenticeship standard descriptor (knowledge)
K1	How to work safely, maintain personal site safety responsibilities, work place relevant health, safety and environmental legislation, safe working practises and procedures and how to respond to and provide solutions to problems and emergencies.
KSBs	Apprenticeship standard descriptor (skills)
S1	Check for, and identify potential hazards in the workplace and comply with appropriate health, safety, risk and quality requirements.
S2	Read, extract, interpret and apply engineering drawing, specification and lift plan information.
S3	Work with others involved or affected by the specified task, and contribute to effective working relationships to ensure work objectives are achieved.
S4	Communicate by keeping those both directly and indirectly involved in the task informed about work plans or activities which may affect them.
S5	Establish the weight and characteristics of the load/structure to be moved.
S6	Apply mathematical techniques and formula related to calculating sling angles, rated forces and the weight/centre of gravity of the load/structure.
S7	Determine resource and technical requirements to achieve objectives, and contribute to the organisation of work activities.
S8	Determine from given information the most appropriate method to move the load/structure and select the appropriate tools, lifting/moving equipment and accessories to enable this.
S9	Safely use tools, equipment and accessories to complete their allotted task.
S10	Determine from given information the most suitable route for moving the load/structure whilst minimising the risk to people, property and the environment.
S11	Ensure that the lifting and moving equipment and accessories are serviceable and appropriate for lifting/moving the load/structure safely.
S12	Ensure that the load is secured and protected before operations start.
S13	Position the moving and lifting equipment so that the weight of the load/structure is evenly distributed.

S14	Use approved methods and the appropriate moving and lifting equipment/accessories to ensure the load/structure is secure and the potential for slippage has been mitigated.
S15	Move/lift the load/structure over the selected approved route.
S16	Signal/communicate effectively with all parties concerned with the lifting/erecting operation when directing/monitoring load/structure manoeuvres.
S17	Move/lift, position and release the load/structure safely in its intended destination.
S18	Safely disconnect load/structure, conduct post use checks on moving and lifting equipment and accessories.
S19	Confirm assemblies and components are free from damage or defects.
S20	Record any damage to load/structure or moving and lifting equipment and accessories, report and segregate defective items.
S21	Work safely at height.
S22	Inform the appropriate people when the load/structure lifting/moving operation is complete.
Rigger Specific Skills	
S23	Apply approved techniques and methods to dismantle engineering construction assemblies for movement.
S24	Use the correct tools and equipment in a safe manner to install/remove loads.
S25	Dismantle loads in the approved sequence and, where necessary support load components before removal of securing devices.
S26	Move/transfer a variety of diverse loads, through complex routes and elevations using differing orientations, numerous attachment points and equipment/accessories.
Erector Specific Skills	
S27	Use recognised methods to dismantle/remove steel structures and/or sections in the correct sequence and, where necessary, support components before removal of securing devices.
S28	Correctly select and safely use hand/mechanical tools and equipment for the erecting and dismantling of capital plant steel structures.
S29	Move/transfer steel sections/construction elements, through complex processes using various orientations, multiple attachment points and equipment/accessories.
S30	Correctly identify, orientate, install, position and secure the components and construction elements completing all necessary connections and check that the installation is complete in accordance with the specification.

Element 3: Technical Interview

KSBs	Apprenticeship standard descriptor (knowledge)
K1	How to work safely, maintain personal site safety responsibilities, work place relevant health, safety and environmental legislation, safe working practises and procedures and how to respond to and provide solutions to problems and emergencies.

K5	Lifting/moving operation roles, responsibilities and reporting chains.
K6	Engineering practices and principles including the reading/interpretation of engineering drawings and specifications.
K7	Hazards and risks that can arise from the moving, lifting and positioning of loads/structures.
KSBs	Apprenticeship standard descriptor (skills)
S1	Check for, and identify potential hazards in the workplace and comply with appropriate health, safety, risk and quality requirements.
S2	Read, extract, interpret and apply engineering drawing, specification and lift plan information.
KSBs	Apprenticeship standard descriptor (behaviours)
B1	Work with others to effectively and efficiently complete the allocated tasks.
B2	Through critical reasoning, resolve problems within their area of responsibility.
B3	Report and escalate problems that cannot be solved to the relevant person.
B4	Take responsibility both as an individual and team member for the quality of the work.
B5	Support their own learning and development and that of others through activities such as mentoring and sharing of expertise and knowledge.
B6	Act ethically, displaying maturity, honesty, integrity and responsibility.
B7	Be conscious of working safely in accordance with health, safety and environmental legislation, applicable regulations and company-specific requirements.
B8	Promote a healthy working environment by taking collective responsibility to establish and maintain a safe, clean and tidy work area/site.
B9	Moral courage to question unsafe behaviours and incorrect work practises and procedures.

Appendix 2 Assessment Specifications

Core knowledge – 36 questions (K1 – K18), Pathway (**Erector**) knowledge (K21 – K23) – 14 questions

Core knowledge – 36 questions (K1 – K18), Pathway (**Rigger**) knowledge (K19 - K20) – 14 questions

Subject area	Knowledge statement		Indicative content & guidance statements
K1	How to work safely, maintain personal site safety responsibilities, work place relevant health, safety and environmental legislation, safe working practises and procedures and how to respond to and provide solutions to problems and emergencies	responsibilities for maintaining personal site safety.	<ul style="list-style-type: none"> • Wear appropriate (task-specific) PPE, e.g., hardhat, safety boots, high viz and eye protection, gloves • Perform a site inspection, e.g., check for overhead powerlines or unstable ground • Inspect rigging/erecting equipment for damage and wear and tear • Establish clear communication channels with the appropriate team members, i.e., site supervisor • Complete all relevant site documentation, i.e., Toolbox talk, lift plans and risk assessments (Point of Work Risk Assessment) POWRA and (Point of Working Lifting Assessment) POWLA • Conduct all operational activities safely meeting relevant health and safety regulations
		key features of relevant work place health, safety and environmental legislation	<ul style="list-style-type: none"> • Health and Safety at Work Act, PUWER, LOLER, COSHH, RIDDOR, Noise at Work, Confined Space, Electricity at Work, Working at Height, Manual Handling
		how to work safely, including safe working practices and procedures .	<ul style="list-style-type: none"> • Attending site inductions and reading site-specific safety guidance documents • Preparing the work area, i.e., free from hazards such as biological, chemical equipment related, environment related, process related and physical related. • Identify and wear the appropriate PPE

			<ul style="list-style-type: none"> • Select and inspect visually and tactile regarding the relevant equipment prior to being used, this can include mechanical, crane fixtures, ropes, cables, slings, hooks, and other hardware associated with rigging and erecting • Complete and interpret all relevant onsite documentation, i.e., method statements, standard operational procedures, lifting plans, toolbox talks, risk assessments and technical drawings. • Communicate effectively with peers and supervisors, this can include verbal, hand signals or by radio <p>On completion of the operational task all handover documentation has been signed by the appropriate team members, i.e., site supervisor.</p>
		how to respond to and provide solutions to problems and emergencies .	<ul style="list-style-type: none"> • Overloading of equipment, Catastrophic equipment failure, Structural failure, Falling objects, Weather related hazards, Medical emergencies, Electrical hazards, Observing incorrect use of equipment.
K2	When to seek assistance from others without causing undue disruption to normal work activities.		
K3	Applicable lifting/equipment regulations, and codes of practice including company/client and local site/project requirements	applicable lifting/equipment regulations	Health and Safety at Work Act, PUWER, LOLER, COSHH, RIDDOR, Noise at Work, Confined Space, Electricity at Work, COMAH, DSEAR, CDM, The Lifting Operations and Lifting Equipment Regulations (1998)
		codes of practice including company/client and local site/project requirements	BS7121 Hand signals, BS 7121 Part 1 2006, The Lifting Operations and Lifting Equipment Regulations 1998, Crane Interest Group – Construction Plant-hire Association (CPA), Tower Crane Interest Group – Construction Plant-hire Association (CPA), BS8460 – Code of practice for the safe use of MEWPS.
K4	The importance and benefits of recognised	importance of recognised industry safety passport schemes	NA

	Industry safety passport schemes	benefits of recognised Industry safety passport schemes	Benefits: Improved safety knowledge, Reduced risk of accidents occurring, Increased efficiency, Career opportunities (Access to construction sites), Higher wages, Enhanced industry reputation
K5	Lifting/moving operation roles, responsibilities and reporting chains		
K6	Engineering practices and principles including the reading/interpretation of engineering drawings and specifications	engineering practices including the reading and interpretation of engineering drawings and specifications	<p>Method statements, Risk assessments, POWRA/POWLA, Lift plans, Technical drawings, Crane specifications, Manufacturers specifications, Handbooks, Trade association codes of practice, Planning and design of the rigging system for lifting and moving heavy loads.</p> <p>Additional guidance</p> <p>Engineering drawings are essential documents that provide detailed information on the construction and assembly of structures. They typically include various details, such as dimensions, materials, and specifications. When it comes to rigging and steel erecting it is crucial to understand and interpret the drawings to ensure correct alignment and stability of structures. Some of the essential details in the drawing include: Load limits, weight distribution and centre of gravity, Positioning and orientation of steel members such as universal columns, rolled steel joists etc, Movement methods and techniques, such as lifting, positioning, lowering, cross hauling, pulling, jacking, and winching, Connection details for steel members such as Beam to Column Connections, Beam to Beam Connection, Column to Column Connections and Column Base Plate Connections, Welding details if applicable, Safety requirements, such as risk assessments and toolbox talks.</p> <p>Specifications are critical documents that provide information on guidelines and standards for the</p>

			materials and processes used in rigging and steel erecting. These specifications typically provide detailed information on the following: The type of rigging and erecting equipment and techniques to be used, such as types of crane, overhead, static, mobile and for rigging, chain blocks, slings, winches, hoists, and pulleys, Safety standards and requirements for the rigging and steel erecting operational activities, Quality control procedures for materials and workmanship, Inspection and testing requirements, such as permit to work and method statements, Tolerances, alignment, and dimensional checks \pm
		engineering principles	Load capacity and weight distribution, Material properties and behaviours, Construction sequencing and coordination, Environmental factors
K7	Hazards and risks that can arise from the moving, lifting and positioning of loads/structures	hazards that can arise from the moving, lifting and positioning of loads and structures	Biological such as bird droppings and rodent infestations that have been identified on a worksite can cause respiratory problems and infections if the employee is not wearing suitable PPE; Chemical such as asbestos not being correctly disposed of, paints and coatings or cleaning agents not being stored correctly; Equipment related such as hoists, chain blocks, pulleys and slings failing due to not being maintained causing fatigue when being used on a regular basis; Environment related, such as noise pollution and spills and leaks specifically hydraulic leaks; Physical, such as heat exhaustion if working outside and musculoskeletal injuries, i.e., sprains, broken bones, and strains; At height, falling from height, struck by falling equipment and electrocution; Presence of third parties, unqualified individuals pose a significant hazard as they may cause an accident due to not being suitably trained or qualified to gain access to an onsite facility.
		risks that can arise from the moving, lifting and positioning of loads and structures	Fall from heights; Electrocution; Falling materials; Crushing injuries; Pinch points to fingers, hands, or any

			other exposed part of the body; Structural collapse; Equipment failure; Adverse weather conditions.
K8	Risk assessments, method statements, lift plans and permit to work systems	the process of risk assessments	Make an assessment of the health and safety risks to which employees and others are exposed on any site; All procedures, locations or actions must be reviewed with respect to how risks can be identified and controlled.
		the features of method statements, lift plans and permit to work systems	<p>Method statement should include a logical step by step process of all tasks that should be carried out. It should include any specific control measures associated with any risks identified, and allow them to be properly planned.</p> <p>Lift plans should include items relating to: Range of precaution; working under suspended loads; visibility; attaching / detaching and securing loads; environment; location; overturning; proximity hazards; derating; lifting people; overload; pre-use checking; continuing integrity of the equipment.</p> <p>A 'permit to work' is a formal system stating exactly what work is to be done and when, and which parts are safe. A responsible person should assess the work and check safety at each stage. The people doing the job sign the permit to show that they understand the risks and precautions necessary. Common categories are: Working at Height; Energized Systems; Fire Safety; Lifting Operations; Dropped objects; Confined Space/ Locations affecting others; Management of change; Ground Uneven/Disturbance.</p>
K9	Application and purpose of static and mobile crange,	the purpose of static and mobile crange	Static cranes are generally used for repeated operations/lifts in a fixed location. This may only be for short period of time. Mobile cranes are used when a limited number of operations/lifts in one location. They are also used where a fixed crane would produce

			limitation on other operations, e.g., blocking roads or access.
		the application of static and mobile craneage	Static and mobile cranes can be used for transferring loads between storage or transport locations. Raising/lowering of loads between levels. Support of loads for the purpose of construction at raised locations.
K10	Specialist equipment required to access and execute Rigging and Erecting activities		
K11	How to correctly select and safely use hand tools, mechanical tools, moving and lifting equipment and accessories	how to correctly select and safely use hand tools	Torque Wrench; Pliers; Hammers; Tape measure; Spirit Levels; Laser alignment equipment; Clamps; Grinders; Spanners; Podger Wrench.
		how to correctly select and safely use mechanical tools	Chain hoist; Lever hoist; Shackles; Turnbuckle; Wire rope snatch block, Spanners or wrenches; Hammers; Grinders; Slings; Pry bars.
		how to correctly select and safely use moving and lifting equipment	Cranes; Forklifts; Load moving skates; Industrial lifting dollies; Chain hoists; Hydraulic jacks; Rigging hardware, such as shackles, turnbuckles, and wire rope clips; Telehandlers; Fly jib; Mobile derrick; Winches; Load cell.
		how to correctly select and safely use accessories	Safety harnesses; Elasticated fall arrest lanyard; Hard hat; Steels boots; Protective clothing; Safety glasses or goggles; Earplugs or ear defenders; Gloves; Tool belts or pouches; Ladders or scaffolding; Warning signs or barriers; Rigging slings or straps; Eye bolts; Spreader beams; Swivel hook; Plate clamps; Lifting frames; Lifting beams.
K12	Lifting, moving and handling equipment methods and techniques,	methods and techniques for lifting, moving and handling equipment	Rigging: Lifting; Positioning; Lowering; Cross hauling; Pulling; Jacking; Winching; Skating; Skidding. Erecting: Lifting; Positioning; Lowering; Jacking.
K13	Methods and techniques used to determine the weight and characteristics of the load/structure,	methods and techniques used to determine the weight and other characteristics of the load and/or structure	Digital weighing crane scale; Load cell; Hydraulic cylinder jack; Calculations based on types of materials; Interpreting lifting plans/technical drawings.

K14	Slinging, lifting, communication and signalling methods and techniques	methods and techniques for slinging and lifting	Inspect all equipment and complete all relevant lifting and erecting documentation prior to commencing with the slinging and lifting operational activity; Determine the weight and centre of gravity of the steel; Select the appropriate slings, including chain slings, wire rope slings and synthetic slings; Position the slings correctly according to the calculations regarding load weight and type of material; Select the appropriate lifting equipment, such as cranes or the use of hoists; Select the appropriate lifting attachments, such as shackles, hooks, and clamps; Interpret and adhere to the appropriate lifting regulations and procedures.
		methods and techniques for communication and signalling	Radio; Written message; Telephone; Hand signals; Verbal
K15	Route and lift planning methods and techniques	methods and techniques for route and lift planning	Site assessment , conduct a thorough visual check of the terrain, location of the load and lifting points, identify any obstacles or obstructions, and any potential hazards or risks; Load calculations , calculate weight, material, and dimensions to determine the most appropriate lifting and rigging equipment; Rigging plan , this document will include the technical data when identifying the equipment for the lift, such as slings, shackles, hooks, and the attachment points of the load. The rigging plan will also include the number of personnel required, their roles and responsibilities; Lift plan , this document will include a detailed method statement describing the entire lifting operation, including the equipment required, the lift sequence, the crane type or lifting device used, and the communication and signal procedures. The lift plan will also include a contingency plan in case of emergencies; Communication plan will include all personnel who are involved with the lift plan, such as a designated person (Lift Supervisor) who will be personally responsible for coordinating the operation and communicating with the

			<p>team. The Lifting Supervisor is responsible for overseeing the set-up, maintenance, and safe and efficient operations of the lifting equipment. He/she is responsible for co-ordinating and supervising all lifting activities in accordance with regulations and is required to be present during all lifting operation; Safety measures will be required to be reviewed and actioned, this will include ensuring all personnel involved with the lift are suitably qualified and are trained in safety procedures and have the appropriate personal protective equipment. The lift and rigging equipment must also be inspected to ensure they are fit for purpose without signs of equipment fatigue. Pre-lift meeting, this meeting will be conducted prior to the lift to ensure all personnel involved with the lift are aware of their responsibilities, topics to be reviewed:</p> <ul style="list-style-type: none"> • An overview of the lift plan • The equipment used to make the lift, crane(s), rigging gear & personnel • A step by step progression of the lift plan • Any & all safety measures that are in place, required or procedural • Go over each & everyone's responsibility, before during & after the lift • Where are people to be located & what the hazards are to each person in that area • How are each & everyone to communicate, hand signals, radio, or verbal • PPE requirements • Each person's qualifications for the job assignment, are their qualifications up to date • Contingency plan • Emergency plan; <p>Post-lift meeting, this meeting should take place on completion of the lift, topics to be reviewed:</p> <ul style="list-style-type: none"> • Once the lift has been completed, the lift supervisor should review the lift plan, personnel & equipment used for the lift • Identify any potential areas for improvements for the future • Make any recommendations to the personnel • If this is a repetitive
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			lift, then the frequency of the post lift meeting may be re-evaluated.
K16	The types of equipment and accessories used for moving, lifting, positioning and erecting loads/structures and their care, control procedures and inspection	the types of equipment and accessories used for moving, lifting, positioning and erecting loads and structures	Cranes; Forklifts; Load moving skates; Industrial lifting dollies; Chain hoists; Hydraulic jacks; Rigging hardware, such as shackles, turnbuckles, and wire rope clips; Telehandlers; Fly jib; Mobile derrick; Winches.
		the care, control, procedures and inspection of equipment and accessories used for moving, lifting, positioning and erecting loads and structures	<p>Care: All equipment and accessories must be cared for properly to ensure they are kept clean, free of damage, and stored in a dry, secure location, quarantine</p> <p>Control: A system of identification, such as colour coding or tagging, should be in place to indicate the status of the equipment, e.g., in use, requires inspection and out of service</p> <p>Procedures: Following manufacturer's instructions, standard operational procedures, method statements and lift plans, using the equipment and accessories only for their intended purpose, and using the appropriate equipment for their intended use.</p> <p>Inspection: Regular inspection of equipment and accessories is crucial to ensure they are safe to use, this includes pre-use inspections, these inspections will take place before each lift and periodically which should be conducted at regular intervals. Inspections should be conducted by suitably qualified personnel who are trained in equipment and accessory inspection.</p> <p>Record Keeping: Records of inspections, repairs, and maintenance should be stored securely and accessible to the appropriate team members. This information can be used to identify potential problems and track the equipment history.</p> <p>Repair and Maintenance: Equipment and accessories that are damaged or in need of repair should be taken out of service immediately. Repairs should only be completed by qualified personnel, and the equipment</p>

			should be inspected and evaluated prior to being put back in service.
K17	Methods of providing temporary support of the load/structure during installation/dismantling operations	methods of providing temporary support of loads and structures during installation or dismantling operations	<p>Shoring & Propping: Shoring and propping involves the use of vertical or angled supports, such as timber or steel beams, to support the load of the structure during construction and dismantling, these can be adjusted to accommodate changes in load or support points.</p> <p>Needle beams: These are temporary beams, used to hold up a structure while structural work is being done. needle beams are often used to hold up a house/building/structure, while doing foundation work.</p> <p>Scaffolding is a temporary structure used to support a work crew and materials to aid in the construction, maintenance and repair of buildings, bridges, and all other manufactured structures.</p> <p>Bracing: Bracing involves the use of diagonal members, such as cables or steel rods providing additional support to a load or structure.</p> <p>Jacks: These can be hydraulic or mechanical devices used to raise or lower structures during construction or dismantling.</p>
K18	Methods of moving/transferring loads/construction elements through complex routes/processes using various orientations, multiple attachment points and equipment/accessories	how to use various orientations when moving or transferring loads or construction elements through complex routes or processes	<p>Horizontal: This orientation is used when the load can be easily transported on a level surface</p> <p>Vertical: This orientation is used when the load cannot be easily transferred due to height limits or obstacles</p> <p>Inclined: This orientation is used when there are changes in elevation that cannot be navigated with a horizontal or vertical lift.</p> <p>Rotational: This orientation is used when the load is required to change direction but cannot be easily moved using other orientations</p> <p>Reversed: This orientation is used when the load is required to be manoeuvred through a narrow space and the use of other orientations are not suitable or safe to use.</p>

			Combined: Multiple orientations can be used in combination to navigate complex routes or processes, for example, a load may be required to be transferred horizontally, then rotated, and then moved vertically to reach its destination.
		how to use multiple attachment points when moving or transferring loads or construction elements through complex routes or processes	
		how to use equipment and accessories when moving or transferring loads or construction elements through complex routes or processes	
Rigger specific knowledge			
K19	The recognised techniques for moving/transferring loads through complex routes using differing orientations, numerous attachment points and equipment/accessories Explain.	the use and importance of differing orientations when using recognised techniques to move or transfer loads through complex routes	There are numerous techniques that can be used to move or transfer loads, such as: Lifting, Pushing, Pulling, Rolling, Sliding. Each of these techniques requires different orientations to ensure that the load is correctly balanced and secure during the transfer of the loads. For example, when using a crane to lift a heavy load, it is important to consider the orientation of the load in relation to the cranes boom and jib. By adjusting the angle of the boom and the position of the load, the operator can ensure that the load is correctly balanced and does not swing or shift in an uncontrolled manner during the lift. Similarly, when pushing or pulling a load it is important to consider the orientation of the load in relation to the pushing or pulling force that is being exerted. By positioning the load at the optimum angle, the operator can increase the amount of force required when it is applied to the load, therefore, making it easier to move the load. The use of differing orientations is also important when navigating through complex routes, such as narrow passageways or tight corners, by changing the orientation of the load. the operator can

			identify and navigate a path that is safe to use reducing the risk of accidents or damage to the load.
		the use and importance of numerous attachment points when using recognised techniques to move or transfer loads through complex routes	There are numerous techniques that can be used to move or transfer loads, such as: Lifting; Pushing; Pulling; Rolling; Sliding. Each of these techniques requires secure attachment points to ensure that the load is correctly balanced and secure during transport. By using numerous attachment points, the load is distributed evenly across the lifting or moving equipment, reducing the risk of the load shifting or swinging during the transfer. This improves the stability and safety of the operation, reducing the risk of accidents or damage to the load. An example could be when using a crane to lift a heavy load, multiple attachment points can be used to ensure the load is evenly distributed across the crane's rigging. This reduces the risk of the load swinging or shifting during the lift, improving the safety of the operation. Overall, the use of numerous attachment points when moving or transferring loads is important for ensuring the safety and stability of the process. By distributing the load evenly across the lifting or moving equipment and reducing the risk of shifting or swinging, operators can minimise the risk of accidents or damage to the load, improving the success of the operation.
		the use and importance of equipment or accessories when using recognised techniques to move or transfer loads through complex routes	Identifying and selecting the correct equipment or accessories is essential for rigging the load safely and efficiently. Rigging involves the use of ropes, chains, and slings, etc to secure the load to the lifting or moving equipment and to distribute the weight evenly. The use of rigging equipment is it allows the load to be secured properly, reducing the risk of accidents or damage to the load during transfer, it also helps to distribute the loads weight evenly across the lifting or moving equipment, improving the stability and safety of the operation. It can also assist in the efficiency of the lift

			<p>reducing the time and cost of the operation. Similarly, when pushing or pulling a load, equipment, and accessories such as ropes, chains and pulleys may be used to evenly distribute the weight across the equipment, therefore improving the stability of the load, making it easier to move and reducing the risk of accidents or damage to the load during transfer. When navigating narrow passages or tight corners equipment such as rollers, skids or dollies can support the movement of the load through these difficult areas. By selecting the most appropriate equipment and accessories for the lifting operation, operators can improve the success of the manoeuvre therefore working in an efficient and effective manner without increasing the risk of accidents or damage to the load during the transfer.</p>
K20	The tools and equipment required for the installation/removal of loads	the tools and equipment required for the installation of loads	<p>Shackles: A shackle is a u-shaped, load bearing connecting device designed to be used with a removable pin. Shackles can be used in several different rigging and load securement applications to connect several types of lifting slings, chain, or rope to an object or to each other.</p> <p>Slings: Primarily, there are three types of slings – web slings, wire rope slings, and chain slings.</p> <p>Wire rope clips: Wire rope clips are a common and necessary piece of rigging hardware when it comes to using wire rope and forming end terminations. They are used to form a wire rope eye or to connect two cables together</p> <p>Hooks: There are two types of swivel hooks, swivel hook for position and swivel hook with bearing. The swivel hook for position is used to position the hook onto the pick point.</p> <p>Turnbuckles: Turnbuckles are used to increase or decrease tension on a load to make minor adjustments.</p>

			<p>A turnbuckle helps to accommodate a difference in sling length, ensuring equal load distribution.</p> <p>Chain hoists: A chain hoist is a mechanism that exerts a force for lifting or lowering an object by using a drum or lift wheel around which rope or chain wraps. Friction brakes help hold the load or object and can be used to help control the descent of the load.</p> <p>Trolley: The trolley is the mechanism that moves the hoist along the bridge girder of a crane. The hoist is moved horizontally along the top or underside of the bridge girder to position it above a load</p> <p>Blocks and Pulleys: A block and tackle or only tackle is a system of two or more pulleys with a rope or cable threaded between them, usually used to lift heavy loads. The pulleys are assembled to form blocks and then blocks are paired so that one is fixed, and one moves with the load.</p> <p>Load Cells: Load cells are often used in the lifting and rigging industry for measuring the accurate weight of an item to be lifted. This type of device is light weighted and built with robust construction, high accuracy, and a large digital display</p> <p>Ladders and Scaffolding: These are used to gain access to the load and for the installation of the rigging gear.</p> <p>Personal Protective Equipment (PPE): This includes hard hats, safety glasses, steel toe capped boots, gloves, and harnesses.</p>
		the tools and equipment required for the removal of loads	<p>Shackles: A shackle is a u-shaped, load bearing connecting device designed to be used with a removable pin. Shackles can be used in several different rigging and load securement applications to connect several types of lifting slings, chain, or rope to an object or to each other.</p> <p>Slings: Primarily, there are three types of slings – web slings, wire rope slings, and chain slings.</p>

			<p>Wire rope clips: Wire rope clips are a common and necessary piece of rigging hardware when it comes to using wire rope and forming end terminations. They are used to form a wire rope eye or to connect two cables together</p> <p>Hooks: There are two types of swivel hooks, swivel hook for position and swivel hook with bearing. The swivel hook for position is used to position the hook onto the pick point.</p> <p>Turnbuckles: Turnbuckles are used to increase or decrease tension on a load to make minor adjustments. A turnbuckle helps to accommodate a difference in sling length, ensuring equal load distribution.</p> <p>Chain hoists: A chain hoist is a mechanism that exerts a force for lifting or lowering an object by using a drum or lift wheel around which rope or chain wraps. Friction brakes help hold the load or object and can be used to help control the descent of the load.</p> <p>Trolley: The trolley is the mechanism that moves the hoist along the bridge girder of a crane. The hoist is moved horizontally along the top or underside of the bridge girder to position it above a load</p> <p>Blocks and Pulleys: A block and tackle or only tackle is a system of two or more pulleys with a rope or cable threaded between them, usually used to lift heavy loads. The pulleys are assembled to form blocks and then blocks are paired so that one is fixed, and one moves with the load.</p>
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Erector specific knowledge			
K21	Methods of moving/transferring steel sections/construction elements through complex processes using various orientations, multiple attachment points and equipment/accessories	the use and importance of using various orientations when using recognised methods to move or transfer steel sections through complex processes.	<p>Horizontal: This orientation is used when the load can be easily transported on a level surface</p> <p>Vertical: This orientation is used when the load cannot be easily transferred due to height limits or obstacles</p> <p>Inclined: This orientation is used when there are changes in elevation that cannot be navigated with a horizontal or vertical lift.</p> <p>Rotational: This orientation is used when the load is required to change direction but cannot be easily moved using other orientations</p> <p>Reversed: This orientation is used when the load is required to be manoeuvred through a narrow space and the use of other orientations are not suitable or safe to use.</p> <p>Combined: Multiple orientations can be used in combination to navigate complex routes or processes, for example, a load may be required to be transferred horizontally, then rotated, and then moved vertically to reach its destination.</p>
		the importance of using multiple attachment points when using recognised methods to move or transfer steel sections through complex processes.	There are numerous techniques that can be used to move or transfer steel sections, such as: Lifting; Pushing; Pulling; Rolling; Sliding. Each of these techniques requires secure attachment points to ensure that the steel section, i.e., universal columns or rolled steel joists is correctly balanced and secure during transport. By using numerous attachment points, the load is distributed evenly across the lifting or moving equipment, reducing the risk of the load shifting or swinging during the transfer. This improves the stability and safety of the operation, reducing the risk of accidents or damage to the load. An example could be when using a crane to lift a heavy load, multiple attachment points can be used to ensure the steel section is evenly distributed across the crane's

			<p>rigging. This reduces the risk of the load swinging or shifting during the lift, improving the safety of the operation. Overall, the use of numerous attachment points when moving or transferring loads is important for ensuring the safety and stability of the process. By distributing the steel section, i.e., universal columns or rolled steel joists evenly across the lifting or moving equipment and reducing the risk of shifting or swinging, operators can minimise the risk of accidents or damage to the load, improving the success of the operation.</p>
		<p>the importance of using equipment and accessories when using recognised methods to move or transfer steel sections through complex processes.</p>	<p>Chain slings or wire rope slings can be used to lift and transport steel sections. The slings should be selected based on the weight and shape of the steel sections being moved, such as: Structural steelwork; Plate work assemblies; Pipework assemblies; Plant and equipment; Electromagnetic cranes, these cranes are used to manage and move metals like steel and iron. Magnet cranes can be found mostly in recycling plants and scrap yards. They operate using a magnetic field that is formed by an electric current passing through windings around the magnet. Vacuum lifting devices can lift and move large and heavy loads with ease. They can manage loads that weigh up to several tonnes and can be used to lift and move a variety of varied materials, including structural steelwork. Four point spreader beams can be configured to meet specific lifting requirements. Spreader frame assemblies have the capacity to lift extra-large and/or awkward, heavy loads. Four point spreader beams offer four lift points for stability on large, heavy, or unusually shaped loads. Taglines are ropes or lines that are connected to the load and controlled by personnel on the ground holding the opposite end of the line. Taglines must be large enough to be easily grasped and must be made of electrically non-</p>

			conductive material, they can help to guide the steel section through complex routes and ensure that the steel does not collide with other objects; Trolley: The trolley is the mechanism that moves the hoist along the bridge girder of a crane. The hoist is moved horizontally along the top or underside of the bridge girder to position it above a load.
		the importance of using various orientations when using recognised methods to move or transfer construction elements through complex processes.	There are numerous techniques that can be used to move or transfer loads, such as: Lifting, Pushing, Pulling, Rolling, Sliding. Each of these techniques requires different orientations to ensure that the load is correctly balanced and secure during the transfer of the loads. For example, when using a crane to lift a heavy load, it is important to consider the orientation of the load in relation to the cranes boom and jib. By adjusting the angle of the boom and the position of the load, the operator can ensure that the load is correctly balanced and does not swing or shift in an uncontrolled manner during the lift. Similarly, when pushing or pulling a load it is important to consider the orientation of the load in relation to the pushing or pulling force that is being exerted. By positioning the load at the optimum angle, the operator can increase the amount of force required when it is applied to the load, therefore, making it easier to move the load. The use of differing orientations is also important when navigating through complex routes, such as narrow passageways or tight corners, by changing the orientation of the load, the operator can identify and navigate a path that is safe to use reducing the risk of accidents or damage to the load.
		the use and importance of using multiple attachment points when using recognised methods to move or transfer construction elements through complex processes.	There are numerous techniques that can be used to move or transfer loads, such as: Lifting; Pushing; Pulling; Rolling; Sliding. Each of these techniques requires secure attachment points to ensure that the load is correctly balanced and secure during transport.

			By using numerous attachment points, the load is distributed evenly across the lifting or moving equipment, reducing the risk of the load shifting or swinging during the transfer. This improves the stability and safety of the operation, reducing the risk of accidents or damage to the load. An example could be when using a crane to lift a heavy load, multiple attachment points can be used to ensure the load is evenly distributed across the crane's rigging. This reduces the risk of the load swinging or shifting during the lift, improving the safety of the operation. Overall, the use of numerous attachment points when moving or transferring loads is important for ensuring the safety and stability of the process. By distributing the load evenly across the lifting or moving equipment and reducing the risk of shifting or swinging, operators can minimise the risk of accidents or damage to the load, improving the success of the operation.
		the use and importance of using equipment and accessories when using recognised methods to move or transfer construction elements through complex processes.	
K22	Methods and techniques used for the erection and dismantling of capital plant steel structures	methods and techniques used for the erection of capital plant steel structures.	<p>The erection of capital plant steel structures requires careful planning and execution to ensure that the structures are erected safely and efficiently. Here are some of the methods used in the engineering construction industry:</p> <p>Planning, prior to any work commencing, a detailed plan such as a method statement should be developed outlining the sequence of work, the equipment and materials required, and the safety measures that are required to be adhered to.</p> <p>Site preparation, the site should be prepared in advance to ensure that there is adequate space for the equipment and materials, and that the ground is level and stable. Any hazards or obstacles should be</p>

			<p>identified and addressed prior to commencing with the task.</p> <p>Lifting and rigging, the steel structures are typically lifted into place using cranes or other lifting equipment. Rigging equipment such as slings, chains, and spreader beams used to distribute the weight of the steel structure evenly and to make certain that the erection of the structure is secure, stable, and safe.</p> <p>Bolting and welding, once the steel structure is in place, it is bolted or welded to the supporting structure to ensure that it is structurally sound. In the engineering construction industry high strength bolts and the use of manual metal arc welding processes are mostly implemented to conduct this method of erection.</p> <p>Access and safety, during the erection process, workers are required to be able to access the steel structure securely safely to perform bolting or welding operations. Scaffolding or mobile elevating work platforms (MEWPs) may be used to provide the necessary access. Safety harnesses and other personal protective equipment (PPE) should also be used to protect workers from falls or other hazards.</p> <p>Quality control, throughout the erection process, quality control measures should be taken to ensure that the steel structure is installed to the correct structural engineering drawing specifications. This may also include inspections of weld and bolts, as well as assessing the integrity of the completed installation.</p> <p>Completion, once the steel structure is fully installed and secured, a final inspection should be conducted to ensure that the installation meets all relevant safety and quality standards.</p>
		methods and techniques used for the dismantling of capital plant steel structures	The dismantling of capital plant steel structures requires careful planning and execution to ensure that

			<p>the structures are erected safely and efficiently. Here are some of the methods used in the engineering construction industry:</p> <p>Planning, prior to any work commencing, a detailed plan such as a method statement should be developed outlining the sequence of work, the equipment and materials required, and the safety measures that are required to be adhered to.</p> <p>Site preparation, the site should be prepared in advance to ensure that there is adequate space for the equipment and materials, and that the ground is level and stable. Any hazards or obstacles should be identified and addressed prior to commencing with the task.</p> <p>Lifting and rigging, the steel structures are typically dismantled using cranes or other lifting equipment. Rigging equipment such as slings, chains, and spreader beams maybe used to distribute the weight of the steel structure evenly and ensure that it is lowered safely.</p> <p>Cutting and dismantling, once the steel structure has been lowered to the ground, it is cut into smaller sections for removal and transport. High powered saws, plasma cutters, oxy/acetylene cutting equipment, and other cutting equipment maybe used for this purpose. Workers may also use hand tools such as wrenches and hammers to remove bolts and other fasteners.</p> <p>Removal and transport, the dismantled components/steel beams are removed from the site using the most appropriate transport method. The steel can then be labelled according to type of material, aluminium or non-ferrous for recycling purposes.</p> <p>Access and safety, during the dismantling process, workers are required to be able to access the steel</p>
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			<p>structure securely safely to perform the dismantling operations. Scaffolding or mobile elevating work platforms (MEWPs) may be used to provide the necessary access. Safety harnesses and other personal protective equipment (PPE) should also be used to protect workers from falls or other hazards.</p> <p>Quality control, throughout the dismantling process, quality control measures should be taken to ensure that the steel structure is dismantled to the correct structural engineering drawing specifications and removed from the site safely.</p>
K23	The hand/mechanical tools and equipment used for the erecting/dismantling of capital plant steel structures		

EPA Element 2: Practical assessment		8 hours (+48 mins at IEPAs discretion)
Assessment conditions <ul style="list-style-type: none"> The assessment area should be adequately resourced, well-lit and present a realistic and safe test environment for the practical assessment to be delivered. If conditions allow, the assessment area may be outdoors. During the assessment all health, safety and environmental requirements along with lifting regulations and Approved Codes of Practice (ACOPs) must be adhered to. 		
Erecting and Rigging tasks <ul style="list-style-type: none"> The load/structures must be slung and then moved/lifted, and positioned in the correct position as per the lift plan. Utilise a complex load path which incorporates multiple orientations and elevations in accordance with the specification. Utilise multiple attachment points ensuring the application of correct techniques and resources in a safe manner. All tools, equipment and accessories supplied for the assessment should be fully serviceable and correctly identified/labelled. Does not include any unloading or loading of transport vehicles. For safety reasons the team must consist of a minimum of three (3) Erectors or three (3) Riggers. Correct and fully serviceable PPE must be used at all times when in the assessment area. 		
Erecting <ul style="list-style-type: none"> The steel assemblies must be lifted, positioned and assembled using correct techniques and resources in a safe manner. All tools, equipment and accessories supplied for the assessment should be fully serviceable and correctly identified/labelled. Use of steel assemblies of multiple shapes and different sizes, including but not limited to: <ul style="list-style-type: none"> Steel beams Columns Bracings Rafters Cold rolled steel work. 	Rigging must be undertaken in a restricted access area. <p>Use of irregular shaped unevenly weighted loads such as:</p> <ul style="list-style-type: none"> Pipe spools Steelwork Motors Pumps Valves Pipe bundles 	

EPA Element 3: Technical interview		90 minutes (+10 mins at IEPAs discretion)	
KSBs	Pass criteria All pass criteria are required to be achieved to achieve a Pass	Merit criteria All merit criteria are required to be achieved to achieve a Merit	Distinction criteria 3 or more of the distinction criteria are required to be achieved to achieve a Distinction
Key area 1 K1, K5, K7, S1, B7, B8	Recognises the importance of, and can explain the reasons why health, safety, environmental and Erecting/ Rigging related rules, legislation and regulations are vital.	Can explain instances where they have raised concerns and can describe their subsequent actions.	Able to show instances where they have been able to proffer or implement improvements to work place safety and explain why these improvements have been successful.
Key area 2 K6	Can evidence where engineering first principles and techniques required for their chosen role have been practically applied in the work place to successfully complete allocated tasks.	Can explain the engineering first principles and techniques. Can explain the roles and responsibilities of allied trades and explains where the work of these trades will impact upon their tasks.	Can explain the technical specialisms of allied trades and explain where the work of these trades will impact upon their tasks and what steps need to be taken to ensure de-confliction.
Key area 3 B2, B4	Aware of the importance of own work and able to solve problems within their own area of responsibility, when questioned can articulate where their work contributes to the objectives of their employer.	Able to articulate where their work contributes to the overall commercial aims and objectives of the customer.	Recognises the overall impact of them not working to the standard.
			Can demonstrate where they have used critical reasoning to solve problems in their own area of responsibility.
Key area 4 K7, B3, B6, B9	Able to explain the importance of conforming to the work place behaviours articulated in the standard.	Provides evidence of instances where they may have been exposed to unsafe/undesirable behaviours and how they dealt with these occurrences.	Recognises the impact of non-conformance on workplace behaviours and organisational culture.
	Fully aware of the implications of deviating from these behaviours.		
	Reports and escalates problems that cannot be solved to the relevant person.		
Key area 5 K6, S2	Fully understands the content of engineering specifications used in their work based activities and how they are applied.	Can explain why engineering specifications are required and how they are applied to work based activities.	Able evidence where they have offered suggestions regarding how the specified engineering specifications could have been modified to improve the work process and quality of the end product.

Key area 6 B1, B5, B8	Can explain the importance of productive team working.	Can explain and demonstrate where they have acted as an effective team member.	Can explain how they can personally contribute to the productivity and dynamics of the team.
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Appendix 3 Evidence Record Authentication Statement

Evidence Record Authentication Statement



Authenticity & currency - The evidence you submit **must**:

- belong to you.
- have been produced by you.
- be current.

Apprentice name:	Click or tap here to enter text.	
Job title/ role:	Click or tap here to enter text.	
ULN number:	Click or tap here to enter text.	
Employer:	Click or tap here to enter text.	
Standard name:	Engineering Construction Erector Rigger	
Standard code:	ST0433	
		Please tick (✓)
I confirm that the evidence I have submitted within the logbook is my own work.		<input type="checkbox"/>
I understand that my results may be invalidated if I have submitted evidence that does not belong to me and which has not been clearly acknowledged.		<input type="checkbox"/>
I confirm that the evidence I have submitted within the logbook was created by me pre-gateway during my apprenticeship.		<input type="checkbox"/>
I confirm that the evidence I have submitted within the logbook meets the requirements of the apprenticeship assessment plan.		<input type="checkbox"/>
Apprentice signature:	Click or tap here to enter text.	
Date:	Click or tap to enter a date.	

This statement **must** be submitted by the apprentice along with their evidence record.

All information provided on this form will be held securely and only used for the purposes provided. Full details on how we use and protect your data are available in our [Privacy Notice](#).

Open Awards tries to meet the highest standards when collecting and using personal information. Customers are encouraged to email info@openawards.org.uk if you believe any data to be incorrect, unfair, misleading or inappropriate.

Appendix 4 Evidence Record Template

Evidence Record Template

Apprentice name:	Click or tap here to enter text.
Job title/ role:	Click or tap here to enter text.
ULN number:	Click or tap here to enter text.
Employer/ Provider name:	Click or tap here to enter text.
Apprenticeship standard:	ST0433 Engineering Construction Erector Rigger

Occupational task (description of activity)	Evidence reference	Evidence format	Evidence location	KSB criteria demonstrated

Occupational task (description of activity)	Evidence reference	Evidence format	Evidence location	KSB criteria demonstrated

Appendix 5 EPA Planning Form

EPA Planning Form



This form is applicable to any End-point assessment (EPA) activity where the assessment(s) is undertaken at a venue not directly managed by Open Awards and to which the independent End-point IEPA (IEPA) is required to attend in-person (i.e., the assessment(s) is undertaken face-to-face and not remotely).

The form must be fully completed by the provider or employer (as appropriate) and uploaded to the Open Awards Secure Portal at the same time as the assessment(s) is booked. Where remedial actions are identified, these must be addressed prior to the assessment day.

Full address of assessment venue	Click or tap here to enter text.
Location IEPA should report to upon arrival	This is important on large sites where there may be multiple receptions/ entrances. E.g., <i>"Reception in Building 'C' on the attached map"</i> Click or tap here to enter text.
Name of contact person at venue	This person will be responsible for meeting the IEPA on arrival, providing an appropriate health & safety briefing and must be available throughout the assessment(s) to deal with queries from the IEPA or emergencies Click or tap here to enter text.
Telephone of contact person at venue	Landline Click or tap here to enter text. Mobile Click or tap here to enter text.
Access arrangements	Is there anything the IEPA should be aware of. E.g., postcode to use with Sat Nav if different from above, car parking arrangements on/ off site, access from nearest train station Click or tap here to enter text.
Specific requirements the IEPA should be aware of	E.g., is PPE required and if so, is the IEPA expected to provide this or will it be provided for them Click or tap here to enter text.
Name of person completing this form	Click or tap here to enter text.
Job title/ position	Click or tap here to enter text.
Date form completed and uploaded to Open Awards Portal	Click or tap to enter a date.

Any other relevant information that would help the IEPA plan for the EPA.
E.g., challenging customers may be present or goods delivery is expected on the day of assessment.

Click or tap here to enter text.

	Yes/ No	If 'No', what remedial actions will be put in place to address this prior to the assessment(s)
There is a current health & safety policy in place for the venue which covers the EPA activities, the apprentice, the IEPA and other visitors undertaking quality assurance of the assessment(s)	Choose an item.	Click or tap here to enter text.
There is appropriate liability insurance in place which covers both the apprentice, IEPA and other visitors undertaking quality assurance of the assessment(s)	Choose an item.	Click or tap here to enter text.
The provider/ employer will undertake an appropriate risk assessment relevant to the assessment(s) and share this with both the apprentice and the IEPA	Choose an item.	Click or tap here to enter text.
The apprentice will have access to any Personal Protective Equipment required and received prior training in its use and storage. This PPE will be fit-for-purpose.	Choose an item.	Click or tap here to enter text.
There is adequate, accessible and signed posted first aid provision including first aid personnel and medical supplies available on the day of the assessment(s)	Choose an item.	Click or tap here to enter text.
An emergency contact at the venue will be available for duration of the EPA	Choose an item.	Click or tap here to enter text.
There are appropriate means of fire detection and raising the alarm in the event of a fire	Choose an item.	Click or tap here to enter text.
There is an emergency procedure (e.g., fire or first aid) in place which will be communicated to the apprentice and IEPA before the assessment(s) commence	Choose an item.	Click or tap here to enter text.
The venue and the assessment environment are safe and hazards appropriately managed in line with current best practice	Choose an item.	Click or tap here to enter text.
Welfare facilities (e.g., toilets, washing, eating and changing) are adequate, safe, healthy, clean and accessible to the IEPA	Choose an item.	Click or tap here to enter text.
All necessary safety notices (e.g., warning signs, fire-related, first aid) are displayed	Choose an item.	Click or tap here to enter text.
All machinery and equipment required is in good working order, meets appropriate legal standards and has been maintained by a competent person	Choose an item.	Click or tap here to enter text.

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