IfATE
Shaping skills training

EPA Draft Preview

DRAFT END-POINT ASSESSMENT PLAN FOR THE LIFTING TECHNICIAN APPRENTICESHIP ST0267/V1.2

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS END-POINT ASSESSMENT (EPA)	INTEGRATION
ST0267	2	None

Contents

Introduction and overview

This document explains the requirements for end-point assessment (EPA) for the lifting technician apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.

Lifting technician apprentices, their employers and training providers should read this document.

This is a core and options apprenticeship. An apprentice must be trained and assessed against the core and one option. The options are:

- Crawler Crane Operator
- Mobile Crane Operator
- Tower Crane Operator
- Overhead Crane Operator

A full-time lifting technician apprentice typically spends 18 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.

The EPA should be completed within an EPA period lasting typically 3 months.

The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR).

This EPA has 2 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - practical assessment with questions:

- fail
- pass

Assessment method 2 - interview underpinned by a portfolio of evidence:

- fail
- pass

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail
- pass

EPA summary table

On-programme - typically 18 months	The apprentice must: • complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard • complete training towards English and mathematics qualifications in line with the apprenticeship funding rules • compile a portfolio of evidence
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent. The apprentice must: • confirm they are ready to take the EPA • have achieved English and mathematics qualifications in line with the apprenticeship funding rules For the interview underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 3 months	The grades available for each assessment method are below Practical assessment with questions: • fail • pass Interview underpinned by a portfolio of evidence: • fail • pass Overall EPA and apprenticeship can be graded: • fail

	• pass
Re-sits and re-takes	The details for re-sits and re-takes are below: • re-take and re-sit grade cap: pass • re-sit timeframe: typically 3 months • re-take timeframe: typically 3 months

Duration of end-point assessment period

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

EPA gateway

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- submit a portfolio of evidence for the interview underpinned by a portfolio of evidence

Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview / professional discussion [delete as appropriate]. It will typically contain 10 discrete pieces of evidence. Evidence must be mapped against the KSBs. 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 and records, for example:

workplace policies and procedures

- witness statements
- annotated photographs
- video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence 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 should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.

Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

Order of assessment methods

The assessment methods can be delivered in any order.The result of one assessment method does not need to be known before starting the next.

Practical assessment with questions

Overview

In a practical assessment with questions, an independent assessor observes the apprentice completing a task or series of tasks set by the EPAO. The EPAO decides in which of the simulated environments it takes place. The assessment environment must closely relate to the apprentice's natural working environment. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- this is a practical role, which can be demonstrated through completing tasks
- it allows for consistency of opportunity for apprentices to demonstrate their competence against the mapped KSBs
- it assesses KSBs holistically and objectively
- it is a valid assessment because it involves direct testing under controlled conditions

Delivery

The practical assessment with questions must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the practical assessment with questions.

The independent assessor must only observe one apprentice at a time to ensure quality and rigour. They must be as unobtrusive as possible.

The EPAO must give an apprentice 14 days' notice of the practical assessment with questions.

The practical assessment with questions must take 4.5 hours.

The independent assessor can increase the time of the practical assessment with questions by up to 10%. This time is to allow the apprentice to complete a task or respond to a question if necessary.

The practical assessment with questions cannot be split, other than for comfort breaks or to allow apprentices to move from one location to another. Where breaks occur, they will not count towards the total EPA time.

The EPAO must manage invigilation of the apprentice during the assessment, to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations.

The independent assessor must explain to the apprentice the format and timescales of the practical assessment with questions before it starts. This does not count towards the assessment time.

The independent assessor must observe the following during the practical assessment:

General:

- comply with health and safety and industry regulations, standards, and guidance
- interpret and use lifting operation information
- using crane electronic read systems
- ensure loads are within SWL (safe working load) and WLL (working load limit)
- inspect lifting accessories

Option: mobile crane

The apprentice must carry out three load lifts, the slinging and signalling for the lifting of the same three loads (totalling 6 lifts) and one mobile crane manoeuvring task. The slinging and signalling and crane operation for the retrospective tasks will require an additional person.

The load lifts and slinging and signalling tasks must utilise, one long load (over 5m in length), one loose or bundled load. A minimum of two tasks must make use of lifting accessories.

- load 1: must be at least 80% of maximum radius and slewing capabilities of the crane, lift and land at a designated place at mid-radius

- load 2: must be at mid-radius, rotate over a structure and land in a designated place using a minimum of 75% radius. On completion return the load to the original start place
- load 3: lift a load from a designated position, and land at a designated place out-of-sight of the candidate

General

- mobile crane configuration for manoeuvring and lifting
- identify and mitigate hazards

Component 1: load lifts (typically 1 hour and 45 minutes)

- access the mobile crane, operating platforms and controls
- carry out lifting of the three loads
- a minimum of one task must include recovery of a simulated load swing of at least 2m
- park, shut down, isolate and secure the mobile crane

Component 2: slinging and signalling (typically 1 hour and 45 minutes)

- carry out slinging of the three loads
- carry out signalling for the lifting of the three loads

Component 3 – mobile crane manoeuvring (typically 30 minutes)

- carry out one mobile crane positioning task:

The crane positioning task must include:

- one tight turn of at least 90 degrees whilst passing through restrictions having a maximum 200 mm clearance each side
- pass one restriction with a maximum clearance of 150mm each side
- forward driving and Reversing of the mobile crane

Option: Crawler crane

The apprentice must carry out three load lifts, the slinging and signalling for the lifting of the same three loads (totalling 6 lifts) and one crawler crane manoeuvring task. The slinging and signalling and crane operation for the retrospective tasks will require an additional person.

General

- crawler crane configuration for travelling and lifting
- identify and mitigate hazards

The load lifts and slinging and signalling tasks must utilise, one long load (over 5m in length), one loose or bundled load. A minimum of two tasks must make use of lifting accessories.

- load 1: must be at least 80% of maximum radius and slewing capabilities of the crane, lift and land at a designated place at mid-radius
- load 2: must be at mid-radius, rotate over a structure and land in a designated place using a minimum of 75% radius, on completion return the load to the original start place
- load 3: lift a load from a designated position, and land at a designated place out-of-sight of the candidate

Component one: load lifts (typically 1 hour and 45 minutes)

- access the crawler crane and controls
- carry out lifting of the three loads
- a minimum of one task must include recovery of a simulated load swing of at least 2m
- park, shut down, isolate and secure the crawler crane

Component 2 slinging and signalling (typically 1 hour and 45 minutes)

- carry out slinging of the three loads
- carrying out signalling for the lifting of the three loads

Component 3 crawler crane manoeuvring (typically 30 minutes)

- carry out one crawler crane positioning task:

The crane positioning task must include:

- one tight turn of at least 90 degrees whilst passing through restrictions having a maximum 200 mm clearance each side
- pass one restriction with a maximum clearance of 150mm each side
- forward driving of the crawler crane

Option: tower crane

The apprentice must carry out four load lifts and the slinging and signalling for the lifting of the same four loads (totalling 8 lifts). The slinging and signalling and crane operation for the retrospective tasks will require an additional person.

The 4 loads must utilise: one long load (over 5m in length) and one loose or bundled load, a minimum of two tasks must make use of lifting accessories.

- load 1: must be at least 80% of maximum radius, rotate for at least 180 degrees without changing radius before landing at minimum radius, lift and land at a designated place at mid-radius
- load 2: must be at mid-radius, rotate over a structure and land in a designated place using a minimum of 75% radius. On completion return the load to the original start place
- load 3: must be at ground level and at minimum radius and rotate for a minimum of 360 degrees maintaining minimum radius, lift and land at a designated place.

- load 4: Lift a load from a designated position, and land at a designated place out-of-sight of the candidate

General

- identify and mitigate hazards

Component 1: load lifts (typically 2 hours)

- access the tower crane
- set up crane lift indictors and configure the crane for lifting
- carry out lifting of the four loads
- a minimum of one task must include recovery of a simulated load swing of at least 2m
- shut down, isolate and secure the tower crane, including placing into free slew mode

Component 2: slinging and signalling (typically 2 hours)

- carry out slinging of the four loads
- carrying out signalling for the lifting of the four loads

Option: overhead crane

The apprentice must carry out four load lifts including travelling and the slinging and signalling for the lifting of the same four loads (totalling 8 lifts). The slinging and signalling and crane operation for the retrospective tasks will require and additional person.

General

- overhead crane configuration for travelling and lifting
- identify and mitigate hazards

The load lifts and slinging and signalling tasks must utilise, one long load (over 5m in length) and one loose or bundled load. A minimum of two tasks must make use of lifting accessories.

- load 1: must be at least 80% of maximum weight capacity of the crane, lift and land at a designated place
- load 2: lift a load from a designated position, and land at a designated place out-of-sight of the candidate
- load 3: must include lifting and lowering load over an obstacle, lift and land at a designated place
- load 4: must incorporate a flat load with minimum dimensions of 3 metre squared, lift and land at a designated place

Component one: load lifts (typically 2 hours)

- access the overhead crane and controls
- carry out lifting of the four loads

- a minimum of one task must include recovery of a simulated load swing of at least 2m
- each load must travel a minimum of 3m
- shut down, isolate and secure the overhead crane

Component 2 slinging and signalling (typically 2 hours)

- carry out slinging of the four loads
- carrying out signalling for the lifting of the four loads

Crane activity tolerances and criteria

All options (lifting tasks):

- loads placed to be landed within 80mm of designated place
- simulated swing to be corrected within 3 moves
- loads did not contact crane or obstacles
- loads not damaged on placement
- load swings kept within 0.5 of a metre (excluding simulated swing)
- lifted all loads vertically (maximum sway – 250 mm)
- landed all loads vertically (maximum sway – 250 mm)

The apprentice must not be graded on any incorrect signals given by the additional person.

All options (signalling tasks):

- signalling instructions enable the placement of the load at the designated place
- signalling instructions prevent the damage of loads upon placement
- signalling instructions prevent the load from contacting the crane or obstacles.

Signalling tolerances must only be applied to the signalling instructions given by the apprentice.

Options: mobile crane and crawler crane additional criteria

- crane did not contact obstacles during manoeuvring task

Additional person required during the practical assessment:

An additional person will be required to support lifting technician practical tasks. The support will include the slinging and signalling of loads and crane operation.

If the practical assessment takes place at the employers' or another employer's premises, the additional person must be provided by the EPAO or the employer. If the practical assessment takes place at the training providers premises the additional person must be provided by the EPAO or training provider. If the practical assessment take place at the EPAOs premises the additional person must be provided by the EPAO. It is the responsibility of the EPAO to

ensure that the additional person selected to support the practical assessment complies with the additional person required during the practical assessment criteria provided in the roles and responsibility section of this EPA plan.

These activities provide the apprentice with the opportunity to demonstrate the KSBs mapped to this assessment method.

The independent assessor must ask questions.

The purpose of the questions is:

- to seek clarification where required
- to assess the level of competence against the grading descriptors

Questions must be asked after the practical. The total duration of the practical is 4.5 hours and the time for questioning is included in the overall assessment time. The total time for the practical element is 4 hours. The time allocated for questioning is 30 minutes.

The independent assessor must ask at least 8 questions. The independent assessor must use the questions from their EPAO's question bank or create their own questions in line with the EPAO's training.

The independent assessor can ask follow-up questions to clarify answers given by the apprentice. These questions are in addition to the above set number of questions for the practical assessment with questions.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision. The independent assessor must assess the practical assessment and responses to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the KSBs observed
- the apprentice's answers to questions
- KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The practical assessment with questions must take place in a simulated environment selected by the EPAO for example, the EPAO's premises, a training provider's premises, the

employer's premises, a test centre or a similar simulated environment. This simulated environment must relate to the apprentice's natural work environment. Equipment and resources needed for the practical assessment with questions must be confirmed to be available by the EPAO, who can liaise with the employer to provide these. They must be in good and safe working condition.

Questioning that occurs after the practical assessment with questions should take place in a suitable environment for example a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of tasks and questions in the case of re-sits and retakes, to minimise predictability.

The EPAO must produce the following materials to support the practical assessment with questions:

- independent assessor assessment materials which include:
  - training materials
  - administration materials
  - moderation and standardisation materials
  - guidance materials
  - grading guidance
  - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Interview underpinned by a portfolio of evidence

Overview

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

Delivery

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

An independent assessor must conduct and assess the interview.

The purpose of the independent assessor's questions will be to assess the apprentice's competence against the following themes:

- core: crane operation principles
- core: sustainability
- option: mobile crane procedures
- option: crawler crane procedures
- option: tower crane procedures
- option: overhead crane procedures
- core: communication
- core: teamworking
- core: employment and CPD
- core: equity, diversity, inclusion and wellbeing

The EPAO must give an apprentice 14 days' notice of the interview.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 60 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

The independent assessor must explain to the apprentice the format and timescales of the interview before it starts. This does not count towards the assessment time.

The independent assessor must ask at least 7 questions. The independent assessor must use the questions from the EPAO's question bank or create their own questions in line with the

EPAO's training. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision.

The independent assessor must keep accurate records of the assessment. They must record:

- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview should take place in a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the interview underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
  - training materials
  - administration materials
  - moderation and standardisation materials

- guidance materials
- grading guidance
- question bank

- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Grading

Practical assessment with questions

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
(Core) Health and safety K1 K3 S1 S3 B1	Puts health, safety and well-being first and carries out tasks in compliance with health and safety regulations, standards and guidance. (K1, S1, B1) Uses personal protective equipment in line with regulatory and organisational requirements. (K3, S3).
(Core) Core crane operation techniques K2 K4 K6 K17 K19 S2 S4 S5 S13 S14	Carries out tasks in compliance with lifting industry regulations, guidance and manufacturer's specifications. (K2, S2) Interprets and uses lifting operation information in line with tasks requirements. (K4, S4) Applies techniques to ensure loads are within safe working load (SWL) limits and working loads limits (WLL), prior to lifting tasks and in line with task requirements. (K17, S13) Uses the cranes electronic read out systems in line with manufacturer's specifications and task requirements. (K6, S5) Carries out inspections of lifting accessories prior to lifting, in line with manufacturer's specifications and task requirements (K19, S14)
(Core) Slinging and signalling K14 K15 S11 S12	Applies communication techniques to direct and guide the movement and placement of loads in line with task requirements and tolerances and criteria. (K14, S11). Uses slinging techniques to attach loads in readiness for lifting in line with task requirements. (K15, S12)
(Mobile Crane Operator) Mobile crane safety K21 K25 S17 S20	Accesses the mobile cranes operating platforms and controls in line with safety procedures and task requirements. (K21, S17) Identifies and mitigates hazards associated with mobile crane operation, prior to carrying out tasks and as they arise during the tasks in line with task requirements and health and safety regulations, standards and guidance. (K25, S20)
(Mobile Crane Operator) Mobile crane components K30 K35 S25 S29	Uses and manipulates mobile crane components to position the crane hook in readiness for lifting in line with task requirements. (K30, S25) Uses mobile crane accessories in line with task requirements and manufacturer's specifications (K35, S29)

(Mobile Crane Operator) Mobile crane manoeuvring K22 K23 S18 S19	Configures the mobile crane for manoeuvring and manoeuvres a mobile crane on site in line with task requirements and tolerances and criteria. (K22, K23, S18, S19)
(Mobile Crane Operator) Mobile crane operation and lifting K26 K27 K28 K29 K32 K33 S22 S23 S24 S26 S27	Positions and sets the mobile crane in readiness for lifting including the placement of outriggers and stability checks in line with task requirements and factors affecting stability. (K26, K27, S22) Applies techniques to configure the mobile crane for lifting including setting up the crane's electronic information or operating system in line with task requirements. (K28, S23) Using the mobile cranes electronic information or operating systems, applies techniques to lift, move and places loads with a mobile crane, ensuring load integrity and stability, including swing correction, in line with task requirements. (K29, K32, K33, S24, S26, S27)
(Mobile Crane Operator) Mobile crane shut down K34 S28	Parks, shuts down, isolates and secures the mobile crane as required throughout the practical tasks, in line manufacturer's specifications and organisational procedures. (K34, S28)
(Crawler Crane Operator) Crawler crane safety K40 K43 S32 S35	Accesses the crawler crane and controls in line with safety procedures and task requirements. (K40, S32) Identifies and mitigates hazards associated with crawler crane operation, prior to carrying out tasks and as they arise during the tasks in line with task requirements and health and safety regulations, standards and guidance. (K43, S35)

(Crawler Crane Operator) Crawler crane components K47 K52 S39 S43	Uses and manipulates crawler crane components to position the crane hook in readiness for lifting in line with task requirements. (K47, S39) Uses crawler crane accessories in line with task requirements and manufacturer's specifications. (K52, S43)
(Crawler Crane Operator) Crawler crane manoeuvring K41 K42 S33 S34	Configures the crawler crane for manoeuvring and manoeuvres a crawler crane on site in line with task requirements and tolerances and criteria. (K41, K42, S33, S34)
(Crawler Crane Operator) Crawler crane operation and lifting K44 K45 K46 K49 K50 S36 S37 S38 S40 S41	Positions the crawler crane and sets the crawler crane in readiness for lifting including stability checks in line with task requirements and factors affecting stability. (K44, S36) Applies techniques to configure the crawler crane for lifting including setting up the crane's electronic information or operating system in line with task requirements. (K45, S37) Using the crawler cranes electronic information or operating systems, applies techniques to lift, move and places loads with a crawler crane, ensuring load integrity and stability, including swing correction, in line with task requirements. (K46, K49, K50, S38, S40, S41)
(Crawler Crane Operator) Crawler crane shut down K51 S42	Parks, shuts down, isolates and secures the crawler crane as required throughout the practical tasks, in line manufacturer's specifications and organisational procedures. (K51, S42)
(Tower Crane Operator) Tower crane safety K62 K66 S49 S52	Using harnessing equipment, accesses the tower crane in line with safety procedures and task requirements. (K62, S49) Identifies and mitigates hazards associated with tower crane operation, prior to lifting tasks and as they arise during the lifting tasks in line with task requirements and health and safety regulations, standards and guidance. (K66, S52)
(Tower Crane Operator) Tower crane components K59	Uses and manipulates tower crane components to position the crane hook in readiness for lifting in line with task requirements. (K71, S56)

K60 K71 S47 S48 S56	Uses tower crane accessories, including jibs and trolleys in line with task requirements and manufacturer's specifications. (K59, K60, S47, S48)
(Tower Crane Operator) Tower crane operation and lifting K64 K65 K67 K68 K69 S50 S51 S53 S54	Sets up tower crane lift indicators in readiness for lifting operations in line with task requirements. (K64, S50) Using the optimum radius and slewing capabilities of the tower crane lifts loads and moves and places loads utilising horizon markers and electronic aids, ensuring the integrity and stability of the load including correcting swing, in line with task requirements. (K65, K67, K68, K69, S51, S53, S54)
(Tower Crane Operator) Tower crane shut down K70 S55	Shuts down, secures the tower crane, including placing the crane into free slew mode, as required throughout the practical tasks, in line with manufacturer's specifications and organisational procedures. (K70, S55)
(Overhead Crane Operator) Overhead crane safety K72 K74 S58 S60	Accesses the overhead crane and controls in line with safety procedures and task requirements. (K72, S58) Identifies and mitigates hazards associated with overhead crane operation, prior to lifting tasks and as they arise during the lifting tasks in line with task requirements and health and safety regulations, standards and guidance. (K74, S60)
(Overhead Crane Operator) Overhead crane travelling K73 K75 K80 S59 S61	Configures the overhead crane for travelling and travels an overhead crane with and without loads in line with task requirements and tolerances and criteria. (K73, K75, K80, S59, S61)
(Overhead Crane Operator) Overhead crane components K79 K85 S65 S69	Uses and manipulates overhead crane components to position the crane hook in readiness for lifting in line with task requirements. (K79, S65) Uses overhead crane accessories in line with task requirements and manufacturer's specifications. (K85, S69)
(Overhead Crane Operator)	Positions the overhead crane and sets the overhead crane in readiness for lifting including stability checks in line with task

Overhead crane operation and lifting K76 K77 K78 K82 K83 S62 S63 S64 S66 S67	requirements and factors affecting stability. (K76, S62) Applies techniques to configure the overhead crane for lifting including setting up the crane's electronic information or operating system in line with task requirements. (K77, S63) Using the overhead cranes electronic information or operating systems, applies techniques to lift, move and places loads with an overhead crane, ensuring load integrity and stability, including swing correction, in line with task requirements. (K78, K82, K83, S64, S66, S67)
(Overhead Crane Operator) Overhead crane shutdown K84 S68	Parks, shuts down, isolates and secures the overhead crane as required throughout the practical tasks, in line with manufacturer's specifications and organisational procedures. (K84, S68)

Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
(Core) Crane operation principles K7 K16 K18 K20 S6 S15 S16 B2 B7	Explains the principles of falls of rope and changing falls of rope during crane operation. (K16) Describes how they use site safety information during crane operations in line with task requirements and organisational procedures. (K18, S6) Explains the crane inspection and examination documentation requirements for their crane type. (K7) Describes how they adapt to new and changing situations, take ownership of given work and how they how they escalaute issues beyond their level of competency in line with organisational procedures. (K20, S16, B2, B7) Describes how they report hazards in line with organisational procedures. (S15)
(Core) Sustainability K10 S7 B5	Describes how they comply with environmental and sustainability regulations, standards and guidance and consider the environment through the segregation of resources for reuse, recycling and disposal. (K10, S7, B5)
(Mobile Crane Operator) mobile crane procedures K24 K31 K36 K37 K38 K39 S21 S30 S31	Describes how they set up a mobile crane for travel on public highways in line with manufactuer's guidance and explains the legislative and local authority requirements for travelling mobile cranes on public highways. (K24, S21) Describes how they carry out maintenance and basic inspections of the mobile crane in line with manufacturer's specifications and organisational procedures. (K37, S30) Describes how they work collaboratively to fit and de-rigg mobile crane extensions and jibs in line with task requirements, manufacturer's specifications and organisational procedures. (K38, S31) Explains the basic characteristics of the mobiles cranes power units, hydraulic systems counterweights, different steering, controls and tyre types. (K36) Explains the dismantling procedure of the mobile crane. (K39)

	Explains the risk associated with travelling the mobile crane with a suspended load. (K31)
(Crawler Crane Operator) Crawler crane procedures K48 K53 K54 K55 K56 S44 S45	Describes how they carry out maintenance and basic inspections of the crawler crane in line with manufacturer's specifications and organisational procedures. (K54, S44) Describes how they work collaboratively to fit and de-rigg crawler crane extensions and jibs in line with task requirements, manufacturers specifications and organisational procedures. (K55, S45) Explains the basic characteristics of the crawler cranes power units, hydraulic systems, counterweights and different types of tracking controls and steering. (K53) Explains the dismantling procedure of the crawler crane. (K56) Explains the risk associated with travelling the crawler crane with a suspended load. (K48)
(Tower Crane Operator) Tower crane procedures K57 K58 K61 K63 S46 S57	Describes how they interpret and use tower crane documentation including operator's manual, ground pressure charts and duties charts in line with task requirements, organisational procedures and manufacturer's specifications. (K57, S46) Explains the basic characteristics and functions of counterweights and the tower base including construction and securing. (K58) Explains the inspection and maintenance requirements of a crane tower, including the types and regularity of inspection and maintenance. (K61) Describes how they carry out predetermined inspections of the tower crane. (S57) Explains the types of hook block used on a tower crane and how they are configured. (K63)
(Overhead Crane Operator) Overhead crane procedures K81 K86 K87 S70	Explains the risk associated with travelling the overhead crane with a suspended load. (K81) Describes how they carry out maintenance and basic inspections of the overhead crane in line with manufacturer's specifications and organisational procedures. (K87, S70)

	Explains the basic characteristics of the overhead cranes power units, hydraulic systems and different control types. (K86)
(Core) Communication K5 K12 S8	Describes how they communicate with others using verbal communication techniques in a way that is suitable for the context and supports task completion. (K12, S8) Describes the purpose of site induction, toolbox talks and team briefings. (K5)
(Core) Team working K8 K13 S9 B3	Describes how they apply team working principles to meet work goals and how their role impacts wider teams and the project objectives. (K8, K13, S9, B3)
(Core) Employment and CPD K11 B4	Describes employment types available within the lifting industry, the principles of starting a business and how customer service levels can impact a business. (K11) Describes learning and development they have completed and recorded to support competence in their role. (B4)
(Core) Equity, diversity, inclusion and well being K9 S10 B6	Describes the common symptoms and warning signs of stress, anxiety and depression in themselves and others and identifies sources of support available. (K9) Describes how they follow and apply equity, diversity, and inclusion legislative guidance and principles when dealing with others. (S10, B6)

Overall EPA grading

Performance in the EPA determines the overall grade of:

- fail
- pass

An independent assessor must individually grade the practical assessment with questions and interview underpinned by a portfolio of evidence in line with this EPA plan.

An independent assessor must individually grade the

- Practical assessment with questions An independent assessor must individually grade the

- Interview underpinned by a portfolio of evidence

The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one assessment method or more, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

Re-sits and re-takes

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 3 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of pass if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Roles and responsibilities

ROLES	RESPONSIBILITIES
Apprentice	As a minimum, the apprentice should: • complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months • complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider • understand the purpose and importance of EPA • prepare for and undertake the EPA including meeting all gateway requirements
Employer	As a minimum, the apprentice's employer must: • select the training provider • work with the training provider to select the EPAO • work with the training provider, where applicable, to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs • arrange and support off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA • ensure the apprentice is prepared for the EPA • ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan • confirm arrangements with the EPAO for the EPA in a timely manner, including who, when, where • provide the EPAO with access to any employer-specific documentation as required for example, company policies • ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs • ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA • ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place • ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based assessments remain independent from the delivery of the EPA

	• pass the certificate to the apprentice upon receipt

EPAO	As a minimum, the EPAO must:
	• conform to the requirements of this EPA plan and deliver its requirements in a timely manner
	• conform to the requirements of the apprenticeship provider and assessment register
	• conform to the requirements of the external quality assurance provider (EQAP)
	• understand the apprenticeship including the occupational standard and EPA plan
	• make all necessary contractual arrangements including agreeing the price of the EPA
	• develop and produce assessment materials including specifications and marking materials, for example mark schemes, practice materials, training material
	• maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:
	  • apprentices
	  • employers
	  • independent assessors
	  • any other roles involved in delivery or grading of the EPA
	• have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes
	• appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan
	• appoint administrators, invigilators and any other roles where required to facilitate the EPA
	• deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required
	• conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when

	the EPA is updated, and at least once a year • conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated risk rating of independent assessors • monitor the performance of all their independent assessors and provide additional training where necessary • develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders • use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship • arrange for the EPA to take place in a timely manner, in consultation with the employer • provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • confirm the gateway requirements have been met before they start the EPA for an apprentice • arrange a suitable venue for the EPA • maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials • where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary • confirm the overall grade awarded • maintain and apply a policy for conducting appeals
Independent assessor	As a minimum, an independent assessor must: • be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment • have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation • have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan • understand the apprenticeship's occupational standard and EPA plan

	• attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year • use language in the delivery of the EPA that is appropriate to the level of the apprenticeship • work with other personnel, where used, in the preparation and delivery of assessment methods • conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan • make final grading decisions in line with this EPA plan • record and report assessment outcome decisions • comply with the IQA requirements of the EPAO • comply with external quality assurance (EQA) requirements
Training provider	As a minimum, the training provider must: • conform to the requirements of the apprenticeship provider and assessment register • ensure procedures are in place to mitigate against any conflict of interest • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard • deliver training to the apprentice as outlined in their apprenticeship agreement • monitor the apprentice's progress during any training provider led on-programme learning • ensure the apprentice is prepared for the EPA • work with the employer to select the EPAO • advise the employer, upon request, on the apprentice's readiness for EPA • ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan • remain independent from the delivery of the EPA
An additional person required during the practical assessment	As a minimum, the competent person must: • be occupationally competent to perform the required role • follow a brief provided by the independent assessor which confirms what is required

	• be at the assessment venue and be in situ prior to the assessment • adhere to confidentiality about all aspects of the assessment • not provide guidance or influence the assessment outcome in any way • provide a written statement to confirm that the task is attributable to the apprentice

Reasonable adjustments

Reasonable adjustments

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations

The EPAO must have special consideration arrangements for the EPA.

This should include:

- how an apprentice qualifies for a special consideration
- what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Internal quality assurance

Internal quality assurance refers to the strategies, policies and procedures that an EPAO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs for this EPA must adhere to the requirements within the roles and responsibilities table.

They must also appoint independent assessors who:

- have recent relevant experience of the occupation or sector to at least occupational level 2 gained in the last 5 years or significant experience of the occupation or sector

Value for money

Affordability of the EPA will be aided by using at least some of the following:

- completing applicable assessment methods online, for example computer-based assessment
- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- conducting assessment methods on the same day

Professional recognition

This apprenticeship is not aligned to professional recognition.

Mapping of KSBs to assessment methods

KNOWLEDGE	ASSESSMENT METHODS
K1: Core. Core: Awareness of health and safety regulations, standards and guidance relevant to the occupation and the crane operator's role and responsibilities.	Practical assessment with questions
K2: Core. Core: Lifting industry regulations, guidance, manufacturer's specifications, and employer's guidance.	Practical assessment with questions
K3: Core. Core: Personal protective equipment (PPE): types and use.	Practical assessment with questions
K4: Core. Core: Methods of interpreting and extracting relevant information from lift plans, method statements, specifications site plans, operator's manual and risk assessments.	Practical assessment with questions
K5: Core. Core: Purpose of workplace inductions, tools box talks and team briefings.	Interview underpinned by a portfolio of evidence
K6: Core. Core: Crane electronic read out systems: purpose and use.	Practical assessment with questions
K7: Core. Core: Crane inspection and examination documentation requirements: data recording, documentation control, auditable records, insurance, warranty, or other protections, inspection and reporting forms.	Interview underpinned by a portfolio of evidence
K8: Core. Core: How own role contributes and impacts the wider team and project objectives.	Interview underpinned by a portfolio of evidence
K9: Core. Core: Awareness of issues, common symptoms and warning signs of stress, anxiety, and depression, plus where to go for help and the resources available.	Interview underpinned by a portfolio of evidence
K10: Core. Core: Awareness of environmental and sustainability regulations, how to use resources efficiently. Principles of	Interview underpinned by a portfolio of evidence

Recycling, reuse, and safe disposal of waste.	
K11: Core. Core: Employment types (self-employed and employed), small business startup principles, tax responsibilities, roles, and responsibilities.	Interview underpinned by a portfolio of evidence
K12: Core. Core: Verbal communication techniques.	Interview underpinned by a portfolio of evidence
K13: Core. Core: Team working techniques.	Interview underpinned by a portfolio of evidence
K14: Core. Core: Communication techniques for the movement and placement of loads: verbal commands, visual commands, hand signals and radio.	Practical assessment with questions
K15: Core. Core: Slinging techniques for the attachment of loads: fibre slings, chain slings and specialist equipment - plate clamps, slippers, lifting beams, lifting cells, eye bolts and magnets.	Practical assessment with questions
K16: Core. Core: Principles of falls of rope and changing falls of rope.	Interview underpinned by a portfolio of evidence
K17: Core. Core: Principles and application techniques of SWL (safe working load) limits & WLL (working load limit).	Practical assessment with questions
K18: Core. Core: Crane operation site safety information: layout of site traffic plans, the working areas, exclusion zones and authorised passages for movement	Interview underpinned by a portfolio of evidence
K19: Core. Core: Lifting accessory inspection: Function and methods of checks, inspections, and reporting forms procedures for lifting accessories.	Practical assessment with questions
K20: Core. Core: Reporting: importance and methods of reporting hazards and issues.	Interview underpinned by a portfolio of evidence

K21: Core. Mobile crane: Controls access techniques and industry safety procedures.	Practical assessment with questions
K22: Core. Mobile crane: Mobile Crane manoeuvring configuration principles.	Practical assessment with questions
K23: Core. Mobile crane: Off highway positioning and manoeuvring requirements and techniques for pre and post operations	Practical assessment with questions
K24: Core. Mobile crane: Highway travel: road travel legislative requirements and local authority requirements	Interview underpinned by a portfolio of evidence
K25: Core. Mobile crane: Hazard identification: situational awareness, Ground condition requirements for travelling with mobile cranes, controlling traction on loose surfaces and inclines, Axle loadings for road travel and un-compacted ground, Height restrictions and markings and Limitations of vision when driving and manoeuvring a mobile crane, crane movement legislative requirements.	Practical assessment with questions
K26: Core. Mobile crane: Factors that affect mobile crane stability: ground conditions, inclines, weather and environmental.	Practical assessment with questions
K27: Core. Mobile crane: Setting the mobile crane: Types of and use of the mobile crane outriggers, positioning, plates and matts	Practical assessment with questions
K28: Core. Mobile crane: Lift configuration techniques, including electronic information and operating system configuration.	Practical assessment with questions
K29: Core. Mobile crane: Purpose and use of mobile crane electronic information and operating systems for lifting operations.	Practical assessment with questions

K30: Core. Mobile crane: Hook positioning components, use and manipulation techniques., including boom extensions and angle and slew.	Practical assessment with questions
K31: Core. Mobile crane: Risks associated with mobile crane when travelling with suspended loads.	Interview underpinned by a portfolio of evidence
K32: Core. Mobile crane: Techniques to ensure load integrity and stability when lifting loads with mobile cranes, including swing correction.	Practical assessment with questions
K33: Core. Mobile crane: Load lifting, moving and placing techniques.	Practical assessment with questions
K34: Core. Mobile crane: Park, shutdown, isolate and securing methods.	Practical assessment with questions
K35: Core. Mobile crane: Lifting accessory types, preparation and use for mobile cranes	Practical assessment with questions
K36: Core. Mobile crane: Characteristics of power units, hydraulic systems, counterweights, different chassis types, different steering types, tyres and driving controls.	Interview underpinned by a portfolio of evidence
K37: Core. Mobile crane: Maintenance: Types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.	Interview underpinned by a portfolio of evidence
K38: Core. Mobile crane: Extensions and jibs fitting and de-rigging procedures and techniques.	Interview underpinned by a portfolio of evidence
K39: Core. Mobile crane: Dismantling procedures.	Interview underpinned by a portfolio of evidence

K40: Core. Crawler crane: Controls access techniques and industry safety procedures.	Practical assessment with questions
K41: Core. Crawler Crane: manoeuvring configuration techniques.	Practical assessment with questions
K42: Core. Crawler Crane: positioning and manoeuvring techniques for pre and post site operations.	Practical assessment with questions
K43: Core. Crawler crane: Hazard identification: situational awareness, ground condition requirements for travelling with crawler cranes, controlling traction on loose surfaces and inclines, track loadings for travel and un-compacted and unsuitable ground, and limitations of vision when manoeuvring a crawler crane.	Practical assessment with questions
K44: Core. Crawler crane: Factors that affect crawler crane stability: ground conditions, inclines, weather and environmental.	Practical assessment with questions
K45: Core. Crawler crane: Lift configuration techniques including electronic information and operating system configuration.	Practical assessment with questions
K46: Core. Crawler crane: Purpose and use of crawler crane electronic information and operating systems for lifting operations.	Practical assessment with questions
K47: Core. Crawler crane: Hook positioning components, use and manipulation techniques, including extension boom, and angle and slew.	Practical assessment with questions
K48: Core. Crawler crane: Risks associated with crawler crane travelling with suspended loads.	Interview underpinned by a portfolio of evidence
K49: Core. Crawler crane: Techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction.	Practical assessment with questions

K50: Core. Crawler crane: Load lifting, moving and placing techniques.	Practical assessment with questions
K51: Core. Crawler crane: Park, shutdown, isolate and securing methods.	Practical assessment with questions
K52: Core. Crawler crane: Lifting accessory types, preparation and use for crawler cranes.	Practical assessment with questions
K53: Core. Crawler crane: characteristics of power units, hydraulic systems, types of counterweights, different chassis types and different types of tracking controls and steering.	Interview underpinned by a portfolio of evidence
K54: Core. Crawler crane: maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.	Interview underpinned by a portfolio of evidence
K55: Core. Crawler crane: Extensions and jibs Fitting and de-rigging procedures and techniques.	Interview underpinned by a portfolio of evidence
K56: Core. Crawler crane: Dismantling procedures.	Interview underpinned by a portfolio of evidence
K57: Core. Tower crane: Documentation types, interpretation, and use: operator's manual, ground pressure material and duties charts.	Interview underpinned by a portfolio of evidence
K58: Core. Tower crane: Characteristics and functions of counterweights and tower bases, including construction and securing.	Interview underpinned by a portfolio of evidence
K59: Core. Tower crane: Types and functions of tower crane Jibs, trolleys, and associated components.	Practical assessment with questions

K60: Core. Tower crane: Lifting accessory types, preparation and use for tower cranes.	Practical assessment with questions
K61: Core. Tower crane: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures, inspections and predetermined inspections.	Interview underpinned by a portfolio of evidence
K62: Core. Tower crane: Accessing arrangements for tower cranes: types and use of harnessing equipment, Recovery, and retrieval procedures and safety procedures.	Practical assessment with questions
K63: Core. Tower crane: Types of hook block and configuration methods.	Interview underpinned by a portfolio of evidence
K64: Core. Tower crane: Lifting indictors, type and set up techniques: rated capacity indicators (RCI), load indicators and distance indicators.	Practical assessment with questions
K65: Core. Tower crane: Methods of lifting for tower cranes including optimising radius and slewing capabilities.	Practical assessment with questions
K66: Core. Tower crane: Hazards identification, situational awareness working in the vicinity of other cranes, zoning systems, Visibility issues and limitations during lifting operations.	Practical assessment with questions
K67: Core. Tower crane: Factors that affect the stability of the tower crane: Centre of gravity, weather, and environment.	Practical assessment with questions
K68: Core. Tower crane: Load moving, and placing techniques, including the use of horizon markers and electronic aids.	Practical assessment with questions
K69: Core. Tower crane: Techniques to ensure load integrity and stability when carrying out lifting operations with tower crane, including swing correction.	Practical assessment with questions

K70: Core. Tower crane: Shutdown and securing procedures including slew mode placement.	Practical assessment with questions
K71: Core. Tower crane: Hook positioning components, use and manipulation techniques including trolley vs jib, radius, and slew.	Practical assessment with questions
K72: Core. Overhead crane: Controls access techniques and industry safety procedures.	Practical assessment with questions
K73: Core. Overhead crane: Configuration methods for travel pre and post operations.	Practical assessment with questions
K74: Core. Overhead crane: Hazard identification, situational awareness, working in the vicinity of other cranes and zoning systems.	Practical assessment with questions
K75: Core. Overhead Crane: Travelling and manoeuvring techniques for pre and post operation.	Practical assessment with questions
K76: Core. Overhead crane: Factors that affect overhead crane stability – ground conditions, infrastructure, weather/environmental, pairing of cranes.	Practical assessment with questions
K77: Core. Overhead crane: Lift configuration techniques including electronic information and operating system configuration.	Practical assessment with questions
K78: Core. Overhead crane: Purpose and use of overhead crane electronic information and operating systems for lifting operations.	Practical assessment with questions
K79: Core. Overhead crane: Hook positioning components, use and manipulation techniques: pairing of two cranes, use of main and auxiliary hoist.	Practical assessment with questions

K80: Core. Overhead crane: Principles of travelling the overhead crane with suspended loads.	Practical assessment with questions
K81: Core. Overhead crane: Risks of travelling with suspended loads	Interview underpinned by a portfolio of evidence
K82: Core. Overhead crane: Techniques to ensure load integrity and stability when carrying out lifting operations with an overhead crane, including swing correction.	Practical assessment with questions
K83: Core. Overhead crane: Load lifting, moving and placing techniques.	Practical assessment with questions
K84: Core. Overhead crane: Park, shutdown, isolate and securing methods.	Practical assessment with questions
K85: Core. Overhead crane: Lifting accessory types, preparation and use for overhead cranes.	Practical assessment with questions
K86: Core. Overhead crane: Characteristics of power units, hydraulic systems, counterweights and different control types.	Interview underpinned by a portfolio of evidence
K87: Core. Overhead crane: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections.	Interview underpinned by a portfolio of evidence

SKILL	ASSESSMENT METHODS
S1: Core. Core: Comply with health and safety regulations, standards, and guidance.	Practical assessment with questions
S2: Core. Core: Comply with industry regulations, guidance, manufacturer's specifications, and employer's guidance.	Practical assessment with questions
S3: Core. Core: Identify and use personal protective equipment (PPE).	Practical assessment with questions
S4: Core. Core: Interpret and use lifting operation information, for example lift plans, method statements, specifications site plans operator's manual and risk assessment.	Practical assessment with questions
S5: Core. Core: Use crane electronic read systems.	Practical assessment with questions
S6: Core. Core: Use site safety information.	Interview underpinned by a portfolio of evidence
S7: Core. Core: Comply with environmental and sustainability regulations, standards, and guidance. Segregate resources for reuse, recycling, and disposal.	Interview underpinned by a portfolio of evidence
S8: Core. Core: Communicate with others verbally for example, internal and external customers, colleagues, and managers.	Interview underpinned by a portfolio of evidence
S9: Core. Core: Apply team working techniques.	Interview underpinned by a portfolio of evidence
S10: Core. Core: Follow equity, diversity and inclusion legislative guidance and principles.	Interview underpinned by a portfolio of evidence
S11: Core. Core: Apply techniques to Direct and guide the movement and placement of loads.	Practical assessment with questions

S12: Core. Core: Attach loads using slinging techniques for example fibre slings, chain slings and specialist equipment.	Practical assessment with questions
S13: Core. Core: Ensure loads are within SWL limits and WLL.	Practical assessment with questions
S14: Core. Core: Inspect lifting accessories.	Practical assessment with questions
S15: Core. Core: Report hazards for example, equipment defects, general hazards or ground hazards.	Interview underpinned by a portfolio of evidence
S16: Core. Core: Escalates issues beyond their level of competence and authority.	Interview underpinned by a portfolio of evidence
S17: Core. Mobile crane: Access a mobile cranes operating platforms and controls.	Practical assessment with questions
S18: Core. Mobile crane: Configure a mobile crane for manoeuvring	Practical assessment with questions
S19: Core. Mobile crane: Manoeuvre a mobile crane on site	Practical assessment with questions
S20: Core. Mobile crane: Identify and mitigate hazards associated with mobile crane operation.	Practical assessment with questions
S21: Core. Mobile crane: Set up a mobile crane for highway travel.	Interview underpinned by a portfolio of evidence
S22: Core. Mobile crane: Position and set a mobile crane for lifting, including area stability checks and out riggers.	Practical assessment with questions
S23: Core. Mobile crane: Configure a mobile crane for lifting including electronic information or operating systems set up.	Practical assessment with questions

S24: Core. Mobile crane: Use the mobile crane's electronic information or operating systems when carrying out lifting operations.	Practical assessment with questions
S25: Core. Mobile crane: Use and manipulate mobile crane components to position the crane hook for example – boom extensions and angle and slew.	Practical assessment with questions
S26: Core. Mobile crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with mobile crane, including swing correction.	Practical assessment with questions
S27: Core. Mobile crane: Apply techniques to lift, move and place a load using a mobile crane.	Practical assessment with questions
S28: Core. Mobile crane: Park, shutdown, isolate and secure a mobile crane.	Practical assessment with questions
S29: Core. Mobile crane: Use mobile crane accessories.	Practical assessment with questions
S30: Core. Mobile crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on mobile cranes.	Interview underpinned by a portfolio of evidence
S31: Core. Mobile crane: Work collaboratively to fit and de-rigg mobile crane extensions and jibs.	Interview underpinned by a portfolio of evidence
S32: Core. Crawler crane: Access a crawler crane and controls.	Practical assessment with questions
S33: Core. Crawler crane: Configure a crawler crane for manoeuvring.	Practical assessment with questions
S34: Core. Crawler crane: Manoeuvre a crawler crane.	Practical assessment with questions

S35: Core. Crawler crane: Identify and mitigate hazards associated with crawler crane operation.	Practical assessment with questions
S36: Core. Crawler crane: Position and set crawler crane for lifting including area stability checks.	Practical assessment with questions
S37: Core. Crawler crane: Configure a crawler crane for lifting including electronic information or operating systems set up.	Practical assessment with questions
S38: Core. Crawler crane: Use crawler crane's electronic information or operating systems when carrying out lifting operations.	Practical assessment with questions
S39: Core. Crawler crane: Use and Manipulate crawler crane components to position the crane hook, for example – extension boom and angle and slew.	Practical assessment with questions
S40: Core. Crawler crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction.	Practical assessment with questions
S41: Core. Crawler crane: Apply techniques to lift, move and place loads using a crawler crane.	Practical assessment with questions
S42: Core. Crawler crane: Park, shutdown, isolate and secure a crawler crane.	Practical assessment with questions
S43: Core. Crawler crane: Use crawler crane accessories.	Practical assessment with questions
S44: Core. Crawler crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on crawler cranes.	Interview underpinned by a portfolio of evidence
S45: Core.	Interview underpinned by a portfolio of evidence

Crawler crane: Work collaboratively to fit and de- rigg crawler crane extensions and jibs.	
S46: Core. Tower crane: Interpret and Use tower crane documentation including operator's manual, ground pressure material and duties charts.	Interview underpinned by a portfolio of evidence
S47: Core. Tower crane: Use tower crane jibs and trolleys for lifting operations.	Practical assessment with questions
S48: Core. Tower crane: Use tower crane accessories.	Practical assessment with questions
S49: Core. Tower crane: Access tower cranes, including with the use of harnessing equipment.	Practical assessment with questions
S50: Core. Tower crane: Set up tower crane lift indicators: for example, rated capacity indicators (RCI), load indictors and distance indicators.	Practical assessment with questions
S51: Core. Tower crane: Lift loads using the optimum radius and slewing capabilities of a tower crane.	Practical assessment with questions
S52: Core. Tower crane: Identify and mitigate hazards associated with tower crane operation.	Practical assessment with questions
S53: Core. Tower crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with tower crane, including swing correction.	Practical assessment with questions
S54: Core. Tower crane: Apply techniques to move and place a load, including the use of horizon markers and electronic aids.	Practical assessment with questions

S55: Core. Tower crane: Shutdown and secure a tower crane including placing the crane into free slew mode.	Practical assessment with questions
S56: Core. Tower crane: Use and Manipulate tower crane components to position the crane hook, for example – Trolley vs jib and radius and slew.	Practical assessment with questions
S57: Core. Tower crane: Conduct basic look over inspections.	Interview underpinned by a portfolio of evidence
S58: Core. Overhead crane: Access an overhead crane and controls.	Practical assessment with questions
S59: Core. Overhead crane: Configure the overhead crane for travelling.	Practical assessment with questions
S60: Core. Overhead crane: Identify and mitigate hazards associated with overhead crane operation.	Practical assessment with questions
S61: Core. Overhead crane: Travel and manoeuvre an overhead crane with and without loads.	Practical assessment with questions
S62: Core. Overhead crane: Position and set overhead crane for lifting including area stability checks.	Practical assessment with questions
S63: Core. Overhead crane: Configure an overhead crane for lifting including electronic information or operating systems set up.	Practical assessment with questions
S64: Core. Overhead crane: Use an overhead crane's electronic information or operating systems when carrying out lifting operations.	Practical assessment with questions
S65: Core. Overhead crane: Use and manipulate components of the overhead crane to position the crane hook, for example – pairing of two cranes, use of main and auxiliary hoist	Practical assessment with questions

S66: Core. Overhead crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with overhead crane, including swing correction.	Practical assessment with questions
S67: Core. Overhead crane: Apply techniques to lift, move and place a load using an overhead crane.	Practical assessment with questions
S68: Core. Overhead crane: Park, Shutdown, isolate and secure an overhead crane.	Practical assessment with questions
S69: Core. Overhead crane: Use overhead crane accessories.	Practical assessment with questions
S70: Core. Overhead crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on overhead cranes.	Interview underpinned by a portfolio of evidence

BEHAVIOUR	ASSESSMENT METHODS
B1: Core. Core: Puts health safety and wellbeing first.	Practical assessment with questions
B2: Core. Core: Take ownership of given work within the limits of own competence knowing when to seek advice.	Interview underpinned by a portfolio of evidence
B3: Core. Core: Team-focused to meet work goals.	Interview underpinned by a portfolio of evidence
B4: Core. Core: Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.	Interview underpinned by a portfolio of evidence
B5: Core. Core: Considers the environment and sustainability.	Interview underpinned by a portfolio of evidence
B6: Core. Core: Apply equity, diversity, and inclusion principles in dealing with others.	Interview underpinned by a portfolio of evidence
B7: Core. Core: Adapt to new and changing situations.	Interview underpinned by a portfolio of evidence

Mapping of KSBs to grade themes

Practical assessment with questions

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
(Core) Health and safety K1 K3 S1 S3 B1	Core: Awareness of health and safety regulations, standards and guidance relevant to the occupation and the crane operator's role and responsibilities. (K1) Core: Personal protective equipment (PPE): types and use. (K3)	Core: Comply with health and safety regulations, standards, and guidance. (S1) Core: Identify and use personal protective equipment (PPE). (S3)	Core: Puts health safety and wellbeing first. (B1)
(Core) Core crane operation techniques K2 K4 K6 K17 K19 S2 S4 S5 S13 S14	Core: Lifting industry regulations, guidance, manufacturer’s specifications, and employer’s guidance. (K2) Core: Methods of interpreting and extracting relevant information from lift plans, method statements, specifications site plans, operator’s manual and risk assessments. (K4) Core: Crane electronic read out systems: purpose and use. (K6) Core: Principles and application techniques of SWL (safe working load) limits & WLL (working load limit). (K17)	Core: Comply with industry regulations, guidance, manufacturer’s specifications, and employer’s guidance. (S2) Core: Interpret and use lifting operation information, for example lift plans, method statements, specifications site plans operator’s manual and risk assessment. (S4) Core: Use crane electronic read systems. (S5) Core: Ensure loads are within SWL limits and WLL. (S13) Core: Inspect lifting accessories. (S14)	None

	Core: Lifting accessory inspection: Function and methods of checks, inspections, and reporting forms procedures for lifting accessories. (K19)		
(Core) Slinging and signalling K14 K15 S11 S12	Core: Communication techniques for the movement and placement of loads: verbal commands, visual commands, hand signals and radio. (K14) Core: Slinging techniques for the attachment of loads: fibre slings, chain slings and specialist equipment - plate clamps, slippers, lifting beams, lifting cells, eye bolts and magnets. (K15)	Core: Apply techniques to Direct and guide the movement and placement of loads. (S11) Core: Attach loads using slinging techniques for example fibre slings, chain slings and specialist equipment. (S12)	None
(Mobile Crane Operator) Mobile crane safety K21 K25 S17 S20	Mobile crane: Controls access techniques and industry safety procedures. (K21) Mobile crane: Hazard identification: situational awareness, Ground condition requirements for travelling with mobile cranes, controlling traction	Mobile crane: Access a mobile cranes operating platforms and controls. (S17) Mobile crane: Identify and mitigate hazards associated with mobile crane operation. (S20)	None

	on loose surfaces and inclines, Axle loadings for road travel and un-compacted ground, Height restrictions and markings and Limitations of vision when driving and manoeuvring a mobile crane, crane movement legislative requirements. (K25)		
(Mobile Crane Operator) Mobile crane components K30 K35 S25 S29	Mobile crane: Hook positioning components, use and manipulation techniques., including boom extensions and angle and slew. (K30) Mobile crane: Lifting accessory types, preparation and use for mobile cranes (K35)	Mobile crane: Use and manipulate mobile crane components to position the crane hook for example – boom extensions and angle and slew. (S25) Mobile crane: Use mobile crane accessories. (S29)	None
(Mobile Crane Operator) Mobile crane manoeuvring K22 K23 S18 S19	Mobile crane: Mobile Crane manoeuvring configuration principles. (K22) Mobile crane: Off highway positioning and manoeuvring requirements and techniques for pre and post operations (K23)	Mobile crane: Configure a mobile crane for manoeuvring (S18) Mobile crane: Manoeuvre a mobile crane on site (S19)	None
(Mobile Crane Operator) Mobile crane operation	Mobile crane: Factors that affect mobile crane stability: ground	Mobile crane: Position and set a mobile crane for lifting, including	None

and lifting K26 K27 K28 K29 K32 K33 S22 S23 S24 S26 S27	conditions, inclines, weather and environmental. (K26) Mobile crane: Setting the mobile crane: Types of and use of the mobile crane outriggers, positioning, plates and matts (K27) Mobile crane: Lift configuration techniques, including electronic information and operating system configuration. (K28) Mobile crane: Purpose and use of mobile crane electronic information and operating systems for lifting operations. (K29) Mobile crane: Techniques to ensure load integrity and stability when lifting loads with mobile cranes, including swing correction. (K32) Mobile crane: Load lifting, moving and placing techniques. (K33)	area stability checks and out riggers. (S22) Mobile crane: Configure a mobile crane for lifting including electronic information or operating systems set up. (S23) Mobile crane: Use the mobile crane's electronic information or operating systems when carrying out lifting operations. (S24) Mobile crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with mobile crane, including swing correction. (S26) Mobile crane: Apply techniques to lift, move and place a load using a mobile crane. (S27)	

(Mobile Crane Operator) Mobile crane shut down K34 S28	Mobile crane: Park, shutdown, isolate and securing methods. (K34)	Mobile crane: Park, shutdown, isolate and secure a mobile crane. (S28)	None
(Crawler Crane Operator) Crawler crane safety K40 K43 S32 S35	Crawler crane: Controls access techniques and industry safety procedures. (K40) Crawler crane: Hazard identification: situational awareness, ground condition requirements for travelling with crawler cranes, controlling traction on loose surfaces and inclines, track loadings for travel and un-compacted and unsuitable ground, and limitations of vision when manoeuvring a crawler crane. (K43)	Crawler crane: Access a crawler crane and controls. (S32) Crawler crane: Identify and mitigate hazards associated with crawler crane operation. (S35)	None
(Crawler Crane Operator) Crawler crane components K47 K52 S39 S43	Crawler crane: Hook positioning components, use and manipulation techniques, including extension boom, and angle and slew. (K47) Crawler crane: Lifting accessory types, preparation and use for crawler cranes. (K52)	Crawler crane: Use and Manipulate crawler crane components to position the crane hook, for example – extension boom and angle and slew. (S39) Crawler crane: Use crawler crane accessories. (S43)	None

(Crawler Crane Operator) Crawler crane manoeuvring K41 K42 S33 S34	Crawler Crane: manoeuvring configuration techniques. (K41) Crawler Crane: positioning and manoeuvring techniques for pre and post site operations. (K42)	Crawler crane: Configure a crawler crane for manoeuvring. (S33) Crawler crane: Manoeuvre a crawler crane. (S34)	None
(Crawler Crane Operator) Crawler crane operation and lifting K44 K45 K46 K49 K50 S36 S37 S38 S40 S41	Crawler crane: Factors that affect crawler crane stability: ground conditions, inclines, weather and environmental. (K44) Crawler crane: Lift configuration techniques including electronic information and operating system configuration. (K45) Crawler crane: Purpose and use of crawler crane electronic information and operating systems for lifting operations. (K46) Crawler crane: Techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction. (K49)	Crawler crane: Position and set crawler crane for lifting including area stability checks. (S36) Crawler crane: Configure a crawler crane for lifting including electronic information or operating systems set up. (S37) Crawler crane: Use crawler crane's electronic information or operating systems when carrying out lifting operations. (S38) Crawler crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with crawler crane, including swing correction. (S40) Crawler crane: Apply techniques to lift, move and place	None

	Crawler crane: Load lifting, moving and placing techniques. (K50)	loads using a crawler crane. (S41)	
(Crawler Crane Operator) Crawler crane shut down K51 S42	Crawler crane: Park, shutdown, isolate and securing methods. (K51)	Crawler crane: Park, shutdown, isolate and secure a crawler crane. (S42)	None
(Tower Crane Operator) Tower crane safety K62 K66 S49 S52	Tower crane: Accessing arrangements for tower cranes: types and use of harnessing equipment, Recovery, and retrieval procedures and safety procedures. (K62) Tower crane: Hazards identification, situational awareness working in the vicinity of other cranes, zoning systems, Visibility issues and limitations during lifting operations. (K66)	Tower crane: Access tower cranes, including with the use of harnessing equipment. (S49) Tower crane: Identify and mitigate hazards associated with tower crane operation. (S52)	None
(Tower Crane Operator) Tower crane components K59 K60 K71 S47 S48 S56	Tower crane: Types and functions of tower crane Jibs, trolleys, and associated components. (K59) Tower crane: Lifting accessory types, preparation and use for tower cranes. (K60)	Tower crane: Use tower crane jibs and trolleys for lifting operations. (S47) Tower crane: Use tower crane accessories. (S48) Tower crane: Use and Manipulate	None

	Tower crane: Hook positioning components, use and manipulation techniques including trolley vs jib, radius, and slew. (K71)	tower crane components to position the crane hook, for example – Trolley vs jib and radius and slew. (S56)	
(Tower Crane Operator) Tower crane operation and lifting K64 K65 K67 K68 K69 S50 S51 S53 S54	Tower crane: Lifting indictors, type and set up techniques: rated capacity indicators (RCI), load indicators and distance indicators. (K64) Tower crane: Methods of lifting for tower cranes including optimising radius and slewing capabilities. (K65) Tower crane: Factors that affect the stability of the tower crane: Centre of gravity, weather, and environment. (K67) Tower crane: Load moving, and placing techniques, including the use of horizon markers and electronic aids. (K68) Tower crane: Techniques to ensure load integrity and stability when carrying out lifting operations with tower crane,	Tower crane: Set up tower crane lift indicators: for example, rated capacity indicators (RCI), load indictors and distance indicators. (S50) Tower crane: Lift loads using the optimum radius and slewing capabilities of a tower crane. (S51) Tower crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with tower crane, including swing correction. (S53) Tower crane: Apply techniques to move and place a load, including the use of horizon markers and electronic aids. (S54)	None

	including swing correction. (K69)		
(Tower Crane Operator) Tower crane shut down K70 S55	Tower crane: Shutdown and securing procedures including slew mode placement. (K70)	Tower crane: Shutdown and secure a tower crane including placing the crane into free slew mode. (S55)	None
(Overhead Crane Operator) Overhead crane safety K72 K74 S58 S60	Overhead crane: Controls access techniques and industry safety procedures. (K72) Overhead crane: Hazard identification, situational awareness, working in the vicinity of other cranes and zoning systems. (K74)	Overhead crane: Access an overhead crane and controls. (S58) Overhead crane: Identify and mitigate hazards associated with overhead crane operation. (S60)	None
(Overhead Crane Operator) Overhead crane travelling K73 K75 K80 S59 S61	Overhead crane: Configuration methods for travel pre and post operations. (K73) Overhead Crane: Travelling and manoeuvring techniques for pre and post operation. (K75) Overhead crane: Principles of travelling the overhead crane with suspended loads. (K80)	Overhead crane: Configure the overhead crane for travelling. (S59) Overhead crane: Travel and manoeuvre an overhead crane with and without loads. (S61)	None

(Overhead Crane Operator) Overhead crane components K79 K85 S65 S69	Overhead crane: Hook positioning components, use and manipulation techniques: pairing of two cranes, use of main and auxiliary hoist. (K79) Overhead crane: Lifting accessory types, preparation and use for overhead cranes. (K85)	Overhead crane: Use and manipulate components of the overhead crane to position the crane hook, for example – pairing of two cranes, use of main and auxiliary hoist (S65) Overhead crane: Use overhead crane accessories. (S69)	None
(Overhead Crane Operator) Overhead crane operation and lifting K76 K77 K78 K82 K83 S62 S63 S64 S66 S67	Overhead crane: Factors that affect overhead crane stability – ground conditions, infrastructure, weather/environmental, pairing of cranes. (K76) Overhead crane: Lift configuration techniques including electronic information and operating system configuration. (K77) Overhead crane: Purpose and use of overhead crane electronic information and operating systems for lifting operations. (K78) Overhead crane: Techniques to ensure load integrity and stability when carrying out lifting operations with an	Overhead crane: Position and set overhead crane for lifting including area stability checks. (S62) Overhead crane: Configure an overhead crane for lifting including electronic information or operating systems set up. (S63) Overhead crane: Use an overhead crane's electronic information or operating systems when carrying out lifting operations. (S64) Overhead crane: Apply techniques to ensure load integrity and stability when carrying out lifting operations with overhead crane,	None

	overhead crane, including swing correction. (K82) Overhead crane: Load lifting, moving and placing techniques. (K83)	including swing correction. (S66) Overhead crane: Apply techniques to lift, move and place a load using an overhead crane. (S67)	
(Overhead Crane Operator) Overhead crane shutdown K84 S68	Overhead crane: Park, shutdown, isolate and securing methods. (K84)	Overhead crane: Park, Shutdown, isolate and secure an overhead crane. (S68)	None

Interview underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
(Core) Crane operation principles K7 K16 K18 K20 S6 S15 S16 B2 B7	Core: Crane inspection and examination documentation requirements: data recording, documentation control, auditable records, insurance, warranty, or other protections, inspection and reporting forms. (K7) Core: Principles of falls of rope and changing falls of rope. (K16) Core: Crane operation site safety information: layout of site traffic plans, the working areas, exclusion zones and authorised passages for movement (K18) Core: Reporting: importance and methods of reporting hazards and issues. (K20)	Core: Use site safety information. (S6) Core: Report hazards for example, equipment defects, general hazards or ground hazards. (S15) Core: Escalates issues beyond their level of competence and authority. (S16)	Core: Take ownership of given work within the limits of own competence knowing when to seek advice. (B2) Core: Adapt to new and changing situations. (B7)

(Core) Sustainability K10 S7 B5	Core: Awareness of environmental and sustainability regulations, how to use resources efficiently. Principles of Recycling, reuse, and safe disposal of waste. (K10)	Core: Comply with environmental and sustainability regulations, standards, and guidance. Segregate resources for reuse, recycling, and disposal. (S7)	Core: Considers the environment and sustainability. (B5)
(Mobile Crane Operator) Mobile crane procedures K24 K31 K36 K37 K38 K39 S21 S30 S31	Mobile crane: Highway travel: road travel legislative requirements and local authority requirements (K24) Mobile crane: Risks associated with mobile crane when travelling with suspended loads. (K31) Mobile crane: Characteristics of power units, hydraulic systems, counterweights, different chassis types, different steering types, tyres and driving controls. (K36) Mobile crane: Maintenance: Types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections. (K37) Mobile crane: Extensions and jibs	Mobile crane: Set up a mobile crane for highway travel. (S21) Mobile crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on mobile cranes. (S30) Mobile crane: Work collaboratively to fit and de-rigg mobile crane extensions and jibs. (S31)	None

	fitting and de-rigging procedures and techniques. (K38) Mobile crane: Dismantling procedures. (K39)		
(Crawler Crane Operator) Crawler crane procedures K48 K53 K54 K55 K56 S44 S45	Crawler crane: Risks associated with crawler crane travelling with suspended loads. (K48) Crawler crane: characteristics of power units, hydraulic systems, types of counterweights, different chassis types and different types of tracking controls and steering. (K53) Crawler crane: maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections. (K54) Crawler crane: Extensions and jibs Fitting and de-rigging procedures and techniques. (K55) Crawler crane: Dismantling procedures. (K56)	Crawler crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on crawler cranes. (S44) Crawler crane: Work collaboratively to fit and de- rigg crawler crane extensions and jibs. (S45)	None

(Tower Crane Operator) Tower crane procedures K57 K58 K61 K63 S46 S57	Tower crane: Documentation types, interpretation, and use: operator's manual, ground pressure material and duties charts. (K57) Tower crane: Characteristics and functions of counterweights and tower bases, including construction and securing. (K58) Tower crane: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures, inspections and predetermined inspections. (K61) Tower crane: Types of hook block and configuration methods. (K63)	Tower crane: Interpret and Use tower crane documentation including operator's manual, ground pressure material and duties charts. (S46) Tower crane: Conduct basic look over inspections. (S57)	None
(Overhead Crane Operator) Overhead crane procedures K81 K86 K87 S70	Overhead crane: Risks of travelling with suspended loads (K81) Overhead crane: Characteristics of power units, hydraulic systems, counterweights and different control types. (K86)	Overhead crane: Conduct regular and non-scheduled checks, maintenance procedures and basic inspections on overhead cranes. (S70)	None

	Overhead crane: Maintenance, types, actions and the conducting of regular and non-scheduled checks, maintenance procedures and basic inspections. (K87)		
(Core) Communication K5 K12 S8	Core: Purpose of workplace inductions, tools box talks and team briefings. (K5) Core: Verbal communication techniques. (K12)	Core: Communicate with others verbally for example, internal and external customers, colleagues, and managers. (S8)	None
(Core) Team working K8 K13 S9 B3	Core: How own role contributes and impacts the wider team and project objectives. (K8) Core: Team working techniques. (K13)	Core: Apply team working techniques. (S9)	Core: Team-focused to meet work goals. (B3)
(Core) Employment and CPD K11 B4	Core: Employment types (self-employed and employed), small business startup principles, tax responsibilities, roles, and responsibilities. (K11)	None	Core: Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice. (B4)
(Core) Equity, diversity, inclusion and well being K9 S10 B6	Core: Awareness of issues, common symptoms and warning signs of stress, anxiety, and depression, plus where to go for	Core: Follow equity, diversity and inclusion legislative guidance and principles. (S10)	Core: Apply equity, diversity, and inclusion principles in dealing with others. (B6)

	help and the resources available. (K9)		