ST0252/V1.2

Draft end-point assessment plan for the Lift and escalator engineering apprenticeship

Apprenticeship reference number	Level of this end-point assessment (EPA)	Integration
ST0252	3	None

Contents

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This EPA has options. Display the EPA for:

All Lift installation Escalator or moving walk installation Lift maintenance and repair Escalator or moving walk maintenance and repair

Introduction and overview

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

Lift and escalator engineering 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:

- Lift installation
- Escalator or moving walk installation
- Lift maintenance and repair
- Escalator or moving walk maintenance and repair

A full-time lift and escalator engineering apprentice typically spends 36 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 4 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 3 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - multiple-choice test:

- fail
- pass
- distinction

Assessment method 2 - practical assessment with questioning:

- fail
- pass

Assessment method 3 - interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

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

- fail
- pass
- distinction

EPA summary table

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On-programme - typically 36 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 4 months	**The grades available for each assessment method are below** Multiple-choice test: • fail • pass • distinction Practical assessment with questioning: • fail • pass Interview underpinned by a portfolio of evidence: • fail • pass • distinction **Overall EPA and apprenticeship can be graded:** ○ fail ○ pass ○ distinction
Professional recognition	This apprenticeship aligns with: • Society of Operations Engineers (SOE) for Engineering Technician
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 6 months

Duration of end-point assessment period

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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 4 months.

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

EPA gateway

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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. It will typically contain 12 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

- lift or escalator test or commissioning results
- maintenance documents
- handover documents
- 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.

At least one piece of discrete portfolio evidence provided in support of S19, S20, S21, S26, S33, S34, S36, S41, S42, S43 and S44 depending on the option selected, must be carried out in within a six-month period prior to the gateway and be confirmed by the employer as being carried out in this time frame. This is to ensure that option specific skills are as up to date as possible.

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

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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.

Multiple-choice test

Edit multiple-choice test form

Overview

In the multiple-choice test, the apprentice answers questions in a controlled and invigilated environment. It gives the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method.

Rationale

This assessment method is being used because:

- it can assess knowledge
- it is easy to administer
- it can be conducted remotely and administered to multiple apprentices at the same time, potentially reducing cost

Delivery

The multiple-choice test must be structured to give the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method to the highest available grade.

The test can be computer or paper based.

The test will consist of 40 multiple-choice questions (35 questions to be based on the core K statements and 5 questions are to be option specific K statements).

Multiple-choice questions must have four options, including one correct answer.

The apprentice must be given at least 2 weeks' notice of the date and time of the test.

Test administration

The apprentice must have 80 minutes to complete the test.

The test is closed book which means that the apprentice cannot refer to reference books or materials whilst taking the test.

The test must be taken in the presence of an invigilator who is the responsibility of the EPAO. The EPAO must have an invigilation policy setting out how the test must be conducted. It must state the ratio of apprentices to invigilators for the setting and allow the test to take place in a secure way.

The EPAO must verify the apprentice's identity and ensure invigilation of the apprentice for example, with 360-degree cameras and screen sharing facilities.

The EPAO is responsible for the security of the test including the arrangements for on-line testing. The EPAO must ensure that their security arrangements maintain the validity and reliability of the test.

Marking

The test must be marked by an independent assessor or marker employed by the EPAO. They must follow a marking scheme produced by the EPAO. Marking by computer is allowed where question types support this.

A correct answer gets 1 mark.

Any incorrect or missing answers get zero marks.

The EPAO is responsible for overseeing the marking of the test.

Assessment location

The apprentice must take the test in a suitably controlled and invigilated environment that is a quiet room, free from distractions and influence. The EPAO must check the venue is suitable.

The test can take place remotely if the appropriate technology and systems are in place to prevent malpractice.

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 should 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 test:

- assessment materials for independent assessors and markers which includes:
    - training materials
    - administration materials
    - moderation and standardisation materials
    - guidance materials
    - grading guidance
    - test specification
    - sample test and mark schemes
    - live tests and mark schemes

    - 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.

Practical assessment with questioning

Edit practical assessment with questioning form

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
- it allows the testing of safety critical knowledge, skills and behaviours

Delivery

The practical assessment with questioning 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 questioning.

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 2 weeks' notice of the practical assessment with questioning.

The practical assessment with questioning must take 2 hours.

The independent assessor can increase the time of the practical assessment with questioning 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 questioning 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 questioning before it starts. This does not count towards the assessment time.

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

- take a lift, escalator or moving walk out of service in preparation for access
- carry out safe access to pit, top of car, or bottom return
- identify key components, their location, operation and adjustment
- carry out safe egress from pit, top of car, or bottom return
- return lift, escalator or moving walk to service and confirm that it is safe for public use

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 are:

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

Questioning must occur during the practical assessment. The time for questioning is included in the overall assessment time.

The independent assessor must ask at least 10 questions during the practical assessment. To remain as unobtrusive as possible, the independent assessor should ask questions during natural breaks in work rather than disrupting the apprentice's flow. 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 questioning.

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 questioning must take place in a simulated environment selected by the EPAO for example, the EPAO's premises, a training provider's premises, a training facility in 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 questioning 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.

Additional venue requirements that must be in place include:

- the practical assessment can take place in a venue provided by the EPAO, training provider, or employer.

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 questioning:

- 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

Edit interview underpinned by a portfolio of evidence form

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:

- planning, tools and resources
- interpreting and using information
- environmental and sustainability
- professional behaviours
- teamwork and communication
- continuous improvement
- lifting and handling
- fault finding and diagnostics
- control systems

They will also be assessed against one of the following themes, based on their chosen option:

- lift installation
- escalator or moving walk installation
- lift maintenance and repair
- escalator or moving walk maintenance and repair

The EPAO must give an apprentice 2 weeks' 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 90 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 12 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 can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

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

Edit add grade descriptor formEdit mapping of ksbs to grade themes formEdit available grades form

Practical assessment with questioning

Fail - does not meet pass criteria

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors
(Core) Documentation K20 S12	Records or enters information, paper based or electronic, in line with the task and site requirements. (K20, S12)
(Core) Work area: set up and restore K25 S11	Prepares, maintains and restores the work area on completion of the activity in line with the task and site requirements. (K25, S11)
(Core) Fire safety and vulnerable people K5 K14	Explains fire safety measures relating to the lift, escalator or moving walk, including correct operation of electrical fault, overload and over temperature protection, and control of combustible materials. (K5) Explains the requirements and their responsibilities for meeting the needs of vulnerable people in a lift, escalator or moving walk environment, including access, evacuation, fire and emergency use. (K14)
(Core) Complying with safety regulations K3 S1 S10 B1	Complies with health and safety regulations, standards, site notices and industry guidance including method statements and risk assessments in line with task and site requirements. (K3, S1, S10, B1)
(Core) Control systems K13 S5	Accesses digital and analogue control and drive systems to meet the task requirements. (K13, S5)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors
(Lift installation) Following precautions in a lift environment K29 K37 K38 K39 S17 S22 S23 S24	Follows precautions when working in a traction lift environment at all times, including taking the lift in and out of service, and accessing the designated areas in line with safety requirements and standards. (K29, K38, K39, S17, S23, S24) Confirms correct operation of the lift system when it has been brought back into service in line with task and manufacturer requirements. (K37, S22)
(Escalator or moving walk installation) Following precautions in an escalator or moving walk environment K40 K45 K46 K47 S25 S28 S29 S30	Follows precautions when working in an escalator or moving walk environment at all times, including taking the escalator or moving walk in and out of service, and accessing the designated areas in line with safety requirements and standards. (K40, K46, K47, S25, S29, S30) Confirms correct operation of the escalator or moving walk system when it has been brought back into service in line with task and manufacturer requirements. (K45, S28)
(Lift maintenance and repair) Following precautions in a lift environment K48 K56 K57 K58 S31 S37 S38 S39	Follows precautions when working in a traction lift environment at all times, including taking the lift in and out of service, and accessing the designated

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors
	areas in line with safety requirements and standards. (K48, K56, K57, S31, S37, S39) Confirms correct operation of the lift system when it has been brought back into service in line with task and manufacturer requirements. (K58, S38)
(Escalator or moving walk maintenance and repair) Following precautions in an escalator or moving walk environment K59 K67 K68 K69 S40 S45 S46 S47	Follows precautions when working in an escalator or moving walk environment at all times, including taking the escalator or moving walk in and out of service, and accessing the designated areas in line with safety requirements and standards. (K59, K67, K68, S40, S45, S46) Confirms correct operation of the escalator or moving walk system when it has been brought back into service in line with task and manufacturer requirements. (K69, S47)

Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
(Core) Planning, tools and resources K6 K12 K27 S3 S8	Explains how they identify, organise, and use resources to complete tasks, with consideration for cost, time, business operation considerations, quality, safety, security, and environmental impact. (K6, K27, S8) Explains how they use tools, alignment equipment and measuring devices in line with organisational and manufacturer's requirements and describes how they complete calibration checks on this equipment. (K12, S3)	Explains the benefits to the organisation and their team of planning and organising resources to complete tasks. (K6, K27, S8) Explains the impact on the organisation of not carrying out calibration checks. (K12, S3)

Theme **KSBs**	**Pass** **Apprentices must demonstrate all of the pass descriptors**	**Distinction** **Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors**
(Core) Interpreting and using information K4 S7	Explains how they interpret and use engineering documentation in line with task and organisational requirements. (K4, S7)	None.
(Core) Environmental and sustainability S2 B6	Explains how they take personal responsibility for their own sustainable working practices, and how they comply with environmental and sustainability regulations and organisational procedures. (S2, B6)	Explains the benefits to the organisation of their approach to sustainability and environmental requirements. (S2, B6)
(Core) Professional behaviours K16 K22 S13 S16 B7	Explains how they are supportive of the needs and concerns of others and how they follow equality, diversity,	Explains the benefits to the organisation of following equality, diversity and

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	and inclusion procedures. (K22, S13, B7) Explains how they carry out and record planned and unplanned learning and development activities in line with organisational requirements. (K16, S16)	inclusion procedures. (K22, S13, B7)
(Core) Teamwork and communication K19 K21 K26 S9 S14 B2 B3	Explains how they act in a professional manner when communicating with others verbally, including how they match the style to the audience, and how they use non-verbal communication techniques to ensure they convey the required	Outlines the benefits of teamwork to their wider organisation. (K26, S14, B3)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	message. (K19, K21, S9, B2) Explains how they collaborate and promote teamwork across disciplines through applying team working principles to meet work goals. (K26, S14, B3)	
(Core) Continuous improvement K28 S15	Explains how they apply continuous improvement techniques in line with organisational requirements and how they devise suggestions for improvement. (K28, S15)	Explains the benefits to the organisation of undertaking continuous improvement activities. (K28, S15)
(Core) Lifting and handling K8 K18 S4	Explains how they lift and handle systems and components using mechanical and	None.

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	manual methods in line with organisational guidelines. (K8, K18, S4)	
(Core) Fault finding, diagnostics and escalation K7 K15 K17 S6 B4 B5	Explains how respond and adapt to work situations and demands and how they identify the incorrect operation of components and systems on lifts, escalators or moving walks using fault finding and diagnostic equipment, methods and techniques, and how they make adjustments or replacement decisions for components or complete units for the lift, escalator or	Explains the benefits of using and optimising fault-finding and diagnostic techniques. (K7, S6)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	moving walk that they are working on, escalating where required. (K7, K15, K17, S6, B4, B5)	
(Lift installation) Lift installation K31 K32 K33 K34 K35 S18 S19 S20 S21	Explains how they measure and set out lift equipment, including lift wells, in line with task and manufacturer's requirements. (K32, S18) Explains how they install lift doors, entrances, and associated equipment in line with task and manufacturer's requirements. (K33, S21) Explains how they install lift suspension systems in line with task and manufacturer's	Explains how problems are overcome when installing lift doors, entrances, and associated equipment. (K33, S21)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	requirements. (K31, K34, S19) Explains how they install lift machines, overspeed protection devices and control systems in line with task and manufacturer's requirements. (K35, S20)	
(Escalator or moving walk installation) Escalator or moving walk installation K42 K43 K44 S26 S27	Explains how they install escalator or moving walk equipment in line with task and manufacturer's requirements. (K42, K44, S26)	Explains how problems are overcome when installing escalator or moving walk equipment. (K43, S26)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	Explains how they measure and set out escalator or moving walk equipment in line with task and manufacturer's requirements. (K43, S27)	
(Lift maintenance and repair) Lift maintenance and repair K50 K51 K52 K53 K55 S32 S33 S34 S35 S36	Explains the function, location and purpose of the load bearing components in a lift. (K50) Explains how they check, replace and setup lift door systems, checking clearances and door closing protection in line with task and manufacturer's	Justifies the organisational approach to planned and reactive lift maintenance. (K55, S36)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	requirements. (K51, S33) Explains how they check lift positions systems and lift travel requirements are working to specification. Explains how they inspect and verify the compliance of suspension systems and how they determine when replacement is necessary. (K50, S32, S34, S35) Explains how they carry out planned and reactive maintenance on lifts in line with task and manufacturer's requirements. (K52, K55, S36)	

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
(Escalator or moving walk maintenance and repair) Escalator or moving walk maintenance and repair K61 K62 K63 K64 K65 K66 S41 S42 S43 S44	Explains how they carry out removal and replacement of escalator or moving walk parts in line with task and manufacturer's requirements. (K61, K62, S41) Explains how they check and set up safety systems on escalator or moving walks in line with task and manufacturer's requirements (K65, S42) Explains how they check, adjust and repair tensioning systems on escalators or moving walks in line with task and manufacturer's	Justifies the organisational approach to planned and reactive escalator or moving walk maintenance. (K64, S44)

Theme KSBs	Pass Apprentices must demonstrate all of the pass descriptors	Distinction Apprentices must demonstrate all of the pass descriptors and all of the distinction descriptors
	requirements. (K66, S43) Explains how they carry out planned and reactive maintenance on escalator or moving walks in line with task and manufacturer's requirements. (K63, K64, S44)	

Multiple-choice test

Grade	Minimum marks required	Maximum marks required
Fail	0	27
Pass	28	33
Distinction	34	40

Overall EPA grading

Edit overall epa grading form

Performance in the EPA determines the overall grade of:

- fail
- pass

- distinction

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

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. To gain an overall distinction, the apprentice must gain a distinction in both the multiple-choice test and the interview.

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

Multiple-choice test	Practical assessment with questioning	Interview underpinned by a portfolio of evidence	Overall Grading
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Pass	Distinction	Pass
Distinction	Pass	Distinction	Distinction

Re-sits and re-takes

Edit re-sits and re-takes form

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 6 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

Edit roles and responsibilities form

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

Roles	Responsibilities
	• 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)

Roles	Responsibilities

	• 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

Roles	Responsibilities
	• 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

Roles	Responsibilities
	• 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

Roles	Responsibilities
	• 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
Marker	As a minimum, the marker must: • attend induction training as directed by the EPAO • have no direct connection or conflict of interest with the apprentice, their employer or training provider • mark test answers in line with the EPAO's mark scheme and procedures
Invigilator	As a minimum, the invigilator must: • attend induction training as directed by the EPAO • not invigilate an assessment, solely, if they have delivered the assessed content to the apprentice • invigilate and supervise the apprentice during tests and in breaks during assessment methods to prevent

Roles	Responsibilities
	malpractice in line with the EPAO's invigilation procedures

Reasonable adjustments

Edit reasonable adjustments form

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

Edit internal quality assurance form

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 3 gained in the last 3 years or significant experience of the occupation or sector

Value for money

Edit value for money form

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

Unavailable professional recognition form

This apprenticeship aligns with:

- Society of Operations Engineers (SOE) for Engineering Technician

Mapping of KSBs to assessment methods

Edit mapping of ksbs to assessment methods form

Knowledge	Assessment methods
K1: Core. Awareness of health and safety regulations, standards, codes of practice and industry guidance, relevance to the occupation and their responsibilities: Health and Safety at Work Act, Control of asbestos regulations, Lifting Operations and Lifting Equipment Regulations (LOLER), Provision and Use of Work Equipment Regulations (PUWER), Control of Substances Hazardous to Health (COSHH), Electricity at Work Regulations, Control of Noise at Work Regulations, Construction Design Management (CDM) Regulations, Building Safety Act and secondary legislation, evacuation, first aid, barriers, guards and signage, safe isolation, near miss reporting, types of fire extinguishers, Personal Protective Equipment (PPE) and working at height regulations.	Multiple-choice test
K2: Core. Environmental and sustainability regulations and guidance, relevance to the occupation and their responsibilities. Environmental hazards that can arise from lift and escalator	Multiple-choice test

Knowledge	Assessment methods
maintenance and installation operations. Environmental management systems standard. Waste management regulations. Types of pollution and control measures: noise, smells, spills, and waste. Waste Electrical and Electronic Equipment Directive (WEEE). Hazardous waste regulations.	
K3: Core. Method statements, risk assessments and types of hazards.	Practical assessment with questioning
K4: Core. Manufacturer manuals, general arrangement and construction drawings, electrical diagrams and mechanical drawings used in lift and escalator engineering.	Interview underpinned by a portfolio of evidence
K5: Core. Fire safety measures including correct operation of electrical fault, overload and over temperature protection, and control of combustible materials.	Practical assessment with questioning
K6: Core. Business operation considerations including: efficiency, customer satisfaction, competitiveness, minimising risks to operation, ethical principles, making recommendations.	Interview underpinned by a portfolio of evidence
K7: Core. Incorrect operation of components and systems. Fault finding and diagnostic methods and techniques, adjustment or replacement decisions, components and complete units.	Interview underpinned by a portfolio of evidence
K8: Core. Principles of manual and mechanical handling: load management, lifting, handling, hoisting, and rigging methods.	Interview underpinned by a portfolio of evidence
K9: Core. Mechanical forces present. How to safely contain and secure.	Multiple-choice test

Knowledge	Assessment methods
K10: Core. Mechanical principles: SI units for mechanical measurements, impact on materials and the modes of failure in engineering systems, mechanical, fluid power transmission systems. The effects of static and dynamic loading.	Multiple-choice test
K11: Core. Electrical principles: SI units for electrical measurements: three phase and single phase distribution systems, properties and applications of conductors and insulators, AC and DC theory covering voltage, current, resistance and capacitance, magnetism and the function of electromagnets, AC and DC motors.	Multiple-choice test
K12: Core. Tools, mechanical measuring devices and alignment equipment: function, use and calibration.	Interview underpinned by a portfolio of evidence
K13: Core. Analogue and digital control systems. Operation, installation and maintenance.	Practical assessment with questioning
K14: Core. Standards and regulations relating to meeting the needs of vulnerable people: access, evacuation, fire and emergency use, relevance to the occupation and their responsibilities.	Practical assessment with questioning
K15: Core. Electrical measuring equipment and diagnostic tools: use and function.	Interview underpinned by a portfolio of evidence
K16: Core. Principles for continued professional development (CPD) for maintaining and improving competence.	Interview underpinned by a portfolio of evidence

Knowledge	Assessment methods
K17: Core. Limits of own competence and where to seek help.	Interview underpinned by a portfolio of evidence
K18: Core. How to plan the unloading and storage of materials.	Interview underpinned by a portfolio of evidence
K19: Core. Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Engineering terminology.	Interview underpinned by a portfolio of evidence
K20: Core. Documentation: methods and requirements - electronic and paper.	Practical assessment with questioning
K21: Core. Non-verbal communication techniques: gestures, facial expressions, tone of voice, eye contact, body language.	Interview underpinned by a portfolio of evidence
K22: Core. Equality Act. Equity, diversity, and inclusion in the workplace. Unconscious bias.	Interview underpinned by a portfolio of evidence
K23: Core. Information technology and digital requirements: digital interfaces, email, Management Information Systems (MIS), virtual communication, learning platforms, work collaboration platforms, General Data Protection Regulation (GDPR), cyber security, technological development, and innovation in the engineering sector.	Multiple-choice test
K24: Core. The lift, escalator and moving walks industry: types of organisations, types of products, supply chain. customers and	Multiple-choice test

Knowledge	Assessment methods
their requirements, impacts on product demand, different teams and functions involved in operations.	
K25: Core. Work area: set up, maintenance and restoring.	Practical assessment with questioning
K26: Core. Team working principles.	Interview underpinned by a portfolio of evidence
K27: Core. Planning, prioritising and work and time management techniques.	Interview underpinned by a portfolio of evidence
K28: Core. Continuous improvement tools and techniques: Lean, Six Sigma, PDCA.	Interview underpinned by a portfolio of evidence
K29: Lift installation. Option 1. British Standard (BS) BS 7255 code of practice for safe working on lifts: relevance of standard, refuge spaces in lift machinery areas and lift wells.	Practical assessment with questioning
K30: Lift installation. Option 1. The Lift Regulations, BS EN 81 series and BS 8486: relevance of regulations.	Multiple-choice test
K31: Lift installation. Option 1. Load bearing components in lift installations.	Interview underpinned by a portfolio of evidence
K32: Lift installation. Option 1. Principles of measuring and setting out lift wells.	Interview underpinned by a portfolio of evidence
K33: Lift installation.	Interview underpinned by a portfolio of evidence

Knowledge	Assessment methods
Option 1. Lift doors and entrances: requirements for alignment, operation and installation including resisting the spread of fire.	
K34: Lift installation. Option 1. Means of suspension, and construction and termination requirements.	Interview underpinned by a portfolio of evidence
K35: Lift installation. Option 1. Buffer and safety gear systems, types, construction and operational requirements.	Interview underpinned by a portfolio of evidence
K36: Lift installation. Option 1. Hydraulic equipment installation requirements: pipework, cylinders, safety components, valves, pumps, and tanks.	Multiple-choice test
K37: Lift installation. Option 1. Principles of confirming correct operation for lift systems and components.	Practical assessment with questioning
K38: Lift installation. Option 1. Principles of taking lifts out of service for access.	Practical assessment with questioning
K39: Lift installation. Option 1. Principles of carrying out access and egress to lift pit and top of car spaces.	Practical assessment with questioning
K40: Escalator or moving walk installation. Option 2. British Safety Standard BS 7801 code of practice for safe working on escalators and moving walks: relevance of standard.	Practical assessment with questioning
K41: Escalator or moving walk installation.	Multiple-choice test

Knowledge	Assessment methods
Option 2. The Supply of Machinery (Safety) Regulations, BS EN 115 series and BS 5656: relevance of regulations.	
K42: Escalator or moving walk installation. Option 2. Load bearing components in an escalator or moving walk installation.	Interview underpinned by a portfolio of evidence
K43: Escalator or moving walk installation. Option 2. Measurement, setting out and adjustment used in a whole installation.	Interview underpinned by a portfolio of evidence
K44: Escalator or moving walk installation. Option 2. Step, pallet and skirting clearances.	Interview underpinned by a portfolio of evidence
K45: Escalator or moving walk installation. Option 2. Principles of confirming correct operation for escalator or moving walk installations and components.	Practical assessment with questioning
K46: Escalator or moving walk installation. Option 2. Principles of taking escalators or moving walks out of service for access.	Practical assessment with questioning
K47: Escalator or moving walk installation. Option 2. Principles of carrying out access and egress to escalator or moving walks bottom return spaces.	Practical assessment with questioning
K48: Lift maintenance and repair. Option 3. British Standard (BS) BS 7255 code of practice for safe working on lifts: relevance of standard, refuge spaces in lift machinery areas and lift wells.	Practical assessment with questioning
K49: Lift maintenance and repair. Option 3: The Lift Regulations, BS EN 81 series: relevance of regulations.	Multiple-choice test

Knowledge	Assessment methods
K50: Lift maintenance and repair. Option 3. Load bearing components in a lift.	Interview underpinned by a portfolio of evidence
K51: Lift maintenance and repair. Option 3. Door and lock clearances and settings: maintenance of parts, part or whole lift door removal and the implications for resisting the spread of fire.	Interview underpinned by a portfolio of evidence
K52: Lift maintenance and repair. Option 3. Lubricants, hydraulic fluids, and cleaning substances.	Interview underpinned by a portfolio of evidence
K53: Lift maintenance and repair. Option 3. Maintenance requirements of suspension systems, correct over-run, termination requirements and discard criteria.	Interview underpinned by a portfolio of evidence
K54: Lift maintenance and repair. Option 3. Hydraulic principles and the movement of masses: fluids, pumps, valve blocks, pistons, and pipework.	Multiple-choice test
K55: Lift maintenance and repair. Option 3. Maintenance practices and techniques: planned, predictive and reactive methods, and their frequency.	Interview underpinned by a portfolio of evidence
K56: Lift maintenance and repair. Option 3. Principles of taking lifts out of service for access.	Practical assessment with questioning
K57: Lift maintenance and repair. Option 3. Principles of carrying out access and egress to lift pit and top of car spaces.	Practical assessment with questioning
K58: Lift maintenance and repair.	Practical assessment with questioning

Knowledge	Assessment methods
Option 3. Principles of confirming correct operation for lift systems and components.	
K59: Escalator or moving walk maintenance and repair. Option 4. British Safety Standard BS 7801 code of practice for safe working on escalators and moving walks: relevance of standard.	Practical assessment with questioning
K60: Escalator or moving walk maintenance and repair. Option 4. The Supply of Machinery (Safety) Regulations, BS EN 115 series and BS 5656: relevance of regulations.	Multiple-choice test
K61: Escalator or moving walk maintenance and repair. Option 4. Load bearing components making up an escalator or moving walk installation.	Interview underpinned by a portfolio of evidence
K62: Escalator or moving walk maintenance and repair. Option 4. Step and pallet clearances and discard criteria.	Interview underpinned by a portfolio of evidence
K63: Escalator or moving walk maintenance and repair. Option 4. Oil and lubricant types, cleaning substances and applications.	Interview underpinned by a portfolio of evidence
K64: Escalator or moving walk maintenance and repair. Option 4. Maintenance practices and techniques: planned, predictive and reactive methods, and their frequency.	Interview underpinned by a portfolio of evidence
K65: Escalator or moving walk maintenance and repair. Option 4. Principles of checking and setting up safety systems.	Interview underpinned by a portfolio of evidence
K66: Escalator or moving walk maintenance and repair. Option 4. Principles of checking, adjusting and repairing tensioning systems.	Interview underpinned by a portfolio of evidence

Knowledge	Assessment methods
K67: Escalator or moving walk maintenance and repair. Option 4. Principles of taking escalators or moving walks out of service for access.	Practical assessment with questioning
K68: Escalator or moving walk maintenance and repair. Option 4. Principles of carrying out access and egress to escalator or moving walks bottom return spaces.	Practical assessment with questioning
K69: Escalator or moving walk maintenance and repair. Option 4. Principles of confirming correct operation for escalator or moving walk installations and components.	Practical assessment with questioning
Skill	**Assessment methods**
S1: Core. Comply with health and safety regulations, standards and industry guidance, for example method statements and risk assessments.	Practical assessment with questioning
S2: Core. Comply with environmental and sustainability regulations and organisational procedures for example, segregate resources for reuse, recycling, and disposal.	Interview underpinned by a portfolio of evidence
S3: Core. Use tools, alignment equipment and measuring devices, completing calibration checks where required.	Interview underpinned by a portfolio of evidence
S4: Core. Lift and handle systems and components using mechanical or manual methods.	Interview underpinned by a portfolio of evidence
S5: Core. Access digital and analogue control and drive systems.	Practical assessment with questioning

Knowledge	Assessment methods
S6: Core. Fault find and diagnose issues using equipment such as multi-meters and electronic diagnostic tools. Escalate issues.	Interview underpinned by a portfolio of evidence
S7: Core. Interpret and use engineering documentation such as electrical wiring diagrams, mechanical drawings, assembly drawings, construction drawings and general arrangement drawings.	Interview underpinned by a portfolio of evidence
S8: Core. Identify, organise, and use resources to complete tasks, with consideration for cost, quality, safety, security, and environmental impact.	Interview underpinned by a portfolio of evidence
S9: Core. Communicate with others verbally for example, colleagues and stakeholders.	Interview underpinned by a portfolio of evidence
S10: Core. Comply with information contained in site notices and instructions.	Practical assessment with questioning
S11: Core. Prepare, maintain and restore the work area on completion of the activity.	Practical assessment with questioning
S12: Core. Record and enter information - paper based or electronic. For example, job sheets, risk assessments, equipment maintenance records, test results, handover documents, on-site checklists, waste environmental records and any legal reporting requirements.	Practical assessment with questioning

Knowledge	Assessment methods
S13: Core. Follow equality, diversity, and inclusion procedures.	Interview underpinned by a portfolio of evidence
S14: Core. Apply team working principles.	Interview underpinned by a portfolio of evidence
S15: Core. Apply continuous improvement techniques. Devise suggestions for improvement.	Interview underpinned by a portfolio of evidence
S16: Core. Carry out and record planned and unplanned learning and development activities.	Interview underpinned by a portfolio of evidence
S17: Lift installation. Option 1. Follow precautions required when working in a traction lift environment.	Practical assessment with questioning
S18: Lift installation. Option 1. Measure and set out lift equipment.	Interview underpinned by a portfolio of evidence
S19: Lift installation. Option 1. Install lift suspension systems.	Interview underpinned by a portfolio of evidence
S20: Lift installation. Option 1. Install lift machines, overspeed protection devices and control systems.	Interview underpinned by a portfolio of evidence
S21: Lift installation. Option 1. Install lift doors, entrances, and associated equipment.	Interview underpinned by a portfolio of evidence
S22: Lift installation.	Practical assessment with questioning

Knowledge	Assessment methods
Option 1. Confirm correct operation associated with lift systems.	
S23: Lift installation. Option 1. Carry out access and egress to lift pit and top of car spaces.	Practical assessment with questioning
S24: Lift installation. Option 1. Take the lift out of service in preparation for access.	Practical assessment with questioning
S25: Escalator or moving walk installation. Option 2. Follow precautions when working in an escalator or moving walk environment.	Practical assessment with questioning
S26: Escalator or moving walk installation. Option 2. Install escalator and moving walk equipment for example truss, steps, pallets, handrail, chains, step band and safety sensors.	Interview underpinned by a portfolio of evidence
S27: Escalator or moving walk installation. Option 2. Measure and set out escalator or moving walk equipment.	Interview underpinned by a portfolio of evidence
S28: Escalator or moving walk installation. Option 2. Confirm correct operation associated with escalator or moving walk systems.	Practical assessment with questioning
S29: Escalator or moving walk installation. Option 2. Take the escalator or moving walk out of service in preparation for access.	Practical assessment with questioning
S30: Escalator or moving walk installation. Option 2. Carry out access and egress to escalator or moving walks bottom return spaces.	Practical assessment with questioning

Knowledge	Assessment methods
S31: Lift maintenance and repair. Option 3. Follow precautions when working in a traction lift environment.	Practical assessment with questioning
S32: Lift maintenance and repair. Option 3. Check lift positioning systems are working to specification.	Interview underpinned by a portfolio of evidence
S33: Lift maintenance and repair. Option 3. Check, replace and setup lift door systems and clearances and check door closing protection.	Interview underpinned by a portfolio of evidence
S34: Lift maintenance and repair. Option 3. Check lift travel requirements such as the correct set up of lift travel over-runs.	Interview underpinned by a portfolio of evidence
S35: Lift maintenance and repair. Option 3. Inspect and verify the compliance of suspension systems. Determine when replacement is necessary.	Interview underpinned by a portfolio of evidence
S36: Lift maintenance and repair. Option 3. Conduct planned and reactive lift maintenance.	Interview underpinned by a portfolio of evidence
S37: Lift maintenance and repair. Option 3. Take the lift out of service in preparation for access.	Practical assessment with questioning
S38: Lift maintenance and repair. Option 3. Confirm correct operation associated with lift systems.	Practical assessment with questioning
S39: Lift maintenance and repair. Option 3. Carry out access and egress to lift pit and top of car spaces.	Practical assessment with questioning

Knowledge	Assessment methods
S40: Escalator or moving walk maintenance and repair. Option 4. Follow precautions when working in an escalator or moving walk environment.	Practical assessment with questioning
S41: Escalator or moving walk maintenance and repair. Option 4. Carry out removal and replacement of escalator or moving walk parts for example steps, pallets, chains, handrails and adjust for optimal performance.	Interview underpinned by a portfolio of evidence
S42: Escalator or moving walk maintenance and repair. Option 4. Check and set up safety systems for example comb plates, handrail entry devices, step sag switches, step and pallet sensors and handrail sensors, ensuring they operate to specification.	Interview underpinned by a portfolio of evidence
S43: Escalator or moving walk maintenance and repair. Option 4. Check, adjust and repair tensioning systems for example handrail tension, main drive chain tension, step chain tension. Split, remove and replace chains.	Interview underpinned by a portfolio of evidence
S44: Escalator or moving walk maintenance and repair. Option 4. Conduct planned and reactive escalator or moving walk maintenance.	Interview underpinned by a portfolio of evidence
S45: Escalator or moving walk maintenance and repair. Option 4. Take the escalator or moving walk out of service in preparation for access.	Practical assessment with questioning
S46: Escalator or moving walk maintenance and repair. Option 4. Carry out access and egress to escalator or moving walks bottom return spaces.	Practical assessment with questioning
S47: Escalator or moving walk maintenance and repair. Option 4. Confirm correct operation associated with escalator or moving walk systems.	Practical assessment with questioning

Behaviour	Assessment methods
B1: Core. Put health and safety first for themselves and others.	Practical assessment with questioning
B2: Core. Act in a professional manner.	Interview underpinned by a portfolio of evidence
B3: Core. Collaborate and promote teamwork across disciplines.	Interview underpinned by a portfolio of evidence
B4: Core. Acts within limits of own competence and seeks assistance when necessary.	Interview underpinned by a portfolio of evidence
B5: Core. Respond and adapt to work demands and situations.	Interview underpinned by a portfolio of evidence
B6: Core. Take personal responsibility for their own sustainable working practices.	Interview underpinned by a portfolio of evidence
B7: Core. Supportive of the needs and concerns of others, for example relating to diversity and inclusion.	Interview underpinned by a portfolio of evidence

Mapping of KSBs to grade themes

Edit add grade themes formEdit mapping of ksbs to grade themes form

Practical assessment with questioning

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
(Core) Documentation K20 S12	Documentation: methods and requirements -	Record and enter information - paper based or electronic. For example, job sheets, risk assessments, equipment	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	electronic and paper. (K20)	maintenance records, test results, handover documents, on-site checklists, waste environmental records and any legal reporting requirements. (S12)	
(Core) Work area: set up and restore K25 S11	Work area: set up, maintenance and restoring. (K25)	Prepare, maintain and restore the work area on completion of the activity. (S11)	None
(Core) Fire safety and vulnerable people K5 K14	Fire safety measures including correct operation of electrical fault, overload and over temperature protection, and control of combustible materials. (K5) Standards and regulations relating to meeting the needs of vulnerable people: access, evacuation, fire and emergency use, relevance to the occupation and their responsibilities. (K14)	None	None
(Core) Complying with safety regulations K3 S1 S10 B1	Method statements, risk assessments and types of hazards. (K3)	Comply with health and safety regulations, standards and industry guidance, for example method statements and risk assessments. (S1)	Put health and safety first for themselves and others. (B1)

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
		Comply with information contained in site notices and instructions. (S10)	
(Core) Control systems K13 S5	Analogue and digital control systems. Operation, installation and maintenance. (K13)	Access digital and analogue control and drive systems. (S5)	None
(Lift installation) Following precautions in a lift environment K29 K37 K38 K39 S17 S22 S23 S24	Option 1. British Standard (BS) BS 7255 code of practice for safe working on lifts: relevance of standard, refuge spaces in lift machinery areas and lift wells. (K29) Option 1. Principles of confirming correct operation for lift systems and components. (K37) Option 1. Principles of taking lifts out of service for access. (K38) Option 1. Principles of carrying out access and egress to lift pit and top of car spaces. (K39)	Option 1. Follow precautions required when working in a traction lift environment. (S17) Option 1. Confirm correct operation associated with lift systems. (S22) Option 1. Carry out access and egress to lift pit and top of car spaces. (S23) Option 1. Take the lift out of service in preparation for access. (S24)	None
(Escalator or moving walk installation)	Option 2. British Safety Standard BS 7801 code of practice for safe	Option 2. Follow precautions when working in an escalator	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
Following precautions in an escalator or moving walk environment K40 K45 K46 K47 S25 S28 S29 S30	working on escalators and moving walks: relevance of standard. (K40) Option 2. Principles of confirming correct operation for escalator or moving walk installations and components. (K45) Option 2. Principles of taking escalators or moving walks out of service for access. (K46) Option 2. Principles of carrying out access and egress to escalator or moving walks bottom return spaces. (K47)	or moving walk environment. (S25) Option 2. Confirm correct operation associated with escalator or moving walk systems. (S28) Option 2. Take the escalator or moving walk out of service in preparation for access. (S29) Option 2. Carry out access and egress to escalator or moving walks bottom return spaces. (S30)	
(Lift maintenance and repair) Following precautions in a lift environment K48 K56 K57 K58 S31 S37 S38 S39	Option 3. British Standard (BS) BS 7255 code of practice for safe working on lifts: relevance of standard, refuge spaces in lift machinery areas and lift wells. (K48) Option 3. Principles of taking lifts out of service for access. (K56)	Option 3. Follow precautions when working in a traction lift environment. (S31) Option 3. Take the lift out of service in preparation for access. (S37) Option 3. Confirm correct operation associated with lift systems. (S38) Option 3. Carry out access and egress to lift	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	Option 3. Principles of carrying out access and egress to lift pit and top of car spaces. (K57) Option 3. Principles of confirming correct operation for lift systems and components. (K58)	pit and top of car spaces. (S39)	
(Escalator or moving walk maintenance and repair) Following precautions in an escalator or moving walk environment K59 K67 K68 K69 S40 S45 S46 S47	Option 4. British Safety Standard BS 7801 code of practice for safe working on escalators and moving walks: relevance of standard. (K59) Option 4. Principles of taking escalators or moving walks out of service for access. (K67) Option 4. Principles of carrying out access and egress to escalator or moving walks bottom return spaces. (K68) Option 4. Principles of confirming correct operation for escalator or moving walk installations and components. (K69)	Option 4. Follow precautions when working in an escalator or moving walk environment. (S40) Option 4. Take the escalator or moving walk out of service in preparation for access. (S45) Option 4. Carry out access and egress to escalator or moving walks bottom return spaces. (S46) Option 4. Confirm correct operation associated with escalator or moving walk systems. (S47)	None

Interview underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
(Core) Planning, tools and resources K6 K12 K27 S3 S8	Business operation considerations including: efficiency, customer satisfaction, competitiveness, minimising risks to operation, ethical principles, making recommendations. (K6) Tools, mechanical measuring devices and alignment equipment: function, use and calibration. (K12) Planning, prioritising and work and time management techniques. (K27)	Use tools, alignment equipment and measuring devices, completing calibration checks where required. (S3) Identify, organise, and use resources to complete tasks, with consideration for cost, quality, safety, security, and environmental impact. (S8)	None
(Core) Interpreting and using information K4 S7	Manufacturer manuals, general arrangement and construction drawings, electrical diagrams and mechanical drawings used in lift and escalator engineering. (K4)	Interpret and use engineering documentation such as electrical wiring diagrams, mechanical drawings, assembly drawings, construction drawings and general arrangement drawings. (S7)	None
(Core) Environmental and sustainability	None	Comply with environmental and sustainability regulations and	Take personal responsibility for their own sustainable

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
S2 B6		organisational procedures for example, segregate resources for reuse, recycling, and disposal. (S2)	working practices. (B6)
(Core) Professional behaviours K16 K22 S13 S16 B7	Principles for continued professional development (CPD) for maintaining and improving competence. (K16) Equality Act. Equity, diversity, and inclusion in the workplace. Unconscious bias. (K22)	Follow equality, diversity, and inclusion procedures. (S13) Carry out and record planned and unplanned learning and development activities. (S16)	Supportive of the needs and concerns of others, for example relating to diversity and inclusion. (B7)
(Core) Teamwork and communication K19 K21 K26 S9 S14 B2 B3	Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Engineering terminology. (K19) Non-verbal communication techniques: gestures, facial expressions, tone of voice, eye contact, body language. (K21) Team working principles. (K26)	Communicate with others verbally for example, colleagues and stakeholders. (S9) Apply team working principles. (S14)	Act in a professional manner. (B2) Collaborate and promote teamwork across disciplines. (B3)

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
(Core) Continuous improvement K28 S15	Continuous improvement tools and techniques: Lean, Six Sigma, PDCA. (K28)	Apply continuous improvement techniques. Devise suggestions for improvement. (S15)	None
(Core) Lifting and handling K8 K18 S4	Principles of manual and mechanical handling: load management, lifting, handling, hoisting, and rigging methods. (K8) How to plan the unloading and storage of materials. (K18)	Lift and handle systems and components using mechanical or manual methods. (S4)	None
(Core) Fault finding, diagnostics and escalation K7 K15 K17 S6 B4 B5	Incorrect operation of components and systems. Fault finding and diagnostic methods and techniques, adjustment or replacement decisions, components and complete units. (K7) Electrical measuring equipment and diagnostic tools: use and function. (K15) Limits of own competence and where to seek help. (K17)	Fault find and diagnose issues using equipment such as multi-meters and electronic diagnostic tools. Escalate issues. (S6)	Acts within limits of own competence and seeks assistance when necessary. (B4) Respond and adapt to work demands and situations. (B5)
(Core) Control systems	None	None	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
(Lift installation) Lift installation K31 K32 K33 K34 K35 S18 S19 S20 S21	Option 1. Load bearing components in lift installations. (K31) Option 1. Principles of measuring and setting out lift wells. (K32) Option 1. Lift doors and entrances: requirements for alignment, operation and installation including resisting the spread of fire. (K33) Option 1. Means of suspension, and construction and termination requirements. (K34) Option 1. Buffer and safety gear systems, types, construction and operational requirements. (K35)	Option 1. Measure and set out lift equipment. (S18) Option 1. Install lift suspension systems. (S19) Option 1. Install lift machines, overspeed protection devices and control systems. (S20) Option 1. Install lift doors, entrances, and associated equipment. (S21)	None
(Escalator or moving walk installation) Escalator or moving walk installation K42 K43 K44 S26 S27	Option 2. Load bearing components in an escalator or moving walk installation. (K42) Option 2. Measurement, setting out and adjustment used in a whole installation. (K43)	Option 2. Install escalator and moving walk equipment for example truss, steps, pallets, handrail, chains, step band and safety sensors. (S26) Option 2. Measure and set out escalator	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
	Option 2. Step, pallet and skirting clearances. (K44)	or moving walk equipment. (S27)	
(Lift maintenance and repair) Lift maintenance and repair K50 K51 K52 K53 K55 S32 S33 S34 S35 S36	Option 3. Load bearing components in a lift. (K50) Option 3. Door and lock clearances and settings: maintenance of parts, part or whole lift door removal and the implications for resisting the spread of fire. (K51) Option 3. Lubricants, hydraulic fluids, and cleaning substances. (K52) Option 3. Maintenance requirements of suspension systems, correct over-run, termination requirements and discard criteria. (K53) Option 3. Maintenance practices and techniques: planned, predictive and reactive methods, and their frequency. (K55)	Option 3. Check lift positioning systems are working to specification. (S32) Option 3. Check, replace and setup lift door systems and clearances and check door closing protection. (S33) Option 3. Check lift travel requirements such as the correct set up of lift travel over-runs. (S34) Option 3. Inspect and verify the compliance of suspension systems. Determine when replacement is necessary. (S35) Option 3. Conduct planned and reactive lift maintenance. (S36)	None
(Escalator or moving walk maintenance and repair) Escalator	Option 4. Load bearing components making up	Option 4. Carry out removal and replacement of escalator or moving	None

KSBS GROUPED BY THEME	Knowledge	Skills	Behaviour
or moving walk maintenance and repair K61 K62 K63 K64 K65 K66 S41 S42 S43 S44	an escalator or moving walk installation. (K61) Option 4. Step and pallet clearances and discard criteria. (K62) Option 4. Oil and lubricant types, cleaning substances and applications. (K63) Option 4. Maintenance practices and techniques: planned, predictive and reactive methods, and their frequency. (K64) Option 4. Principles of checking and setting up safety systems. (K65) Option 4. Principles of checking, adjusting and repairing tensioning systems. (K66)	walk parts for example steps, pallets, chains, handrails and adjust for optimal performance. (S41) Option 4. Check and set up safety systems for example comb plates, handrail entry devices, step sag switches, step and pallet sensors and handrail sensors, ensuring they operate to specification. (S42) Option 4. Check, adjust and repair tensioning systems for example handrail tension, main drive chain tension, step chain tension. Split, remove and replace chains. (S43) Option 4. Conduct planned and reactive escalator or moving walk maintenance. (S44)	

Supporting information

External quality assurance

Edit external quality assurance - eqa form

Option selected: Ofqual

Involved employers

ANSA Elevators Ltd, Apex Lifts Ltd, Bucher Hydraulics, Classic Lifts Ltd, Global Lift Equipment, Guideline Lift Services Ltd, Jackson Lift Group, KONE plc, Liftec Lifts Ltd, London Underground, Northern Elevator Ltd, Otis Ltd, Pickerings Lifts, Schindler Ltd, Stannah Lifts Ltd, ThyssenKrupp Elevator UK Ltd, Titan Elevators Ltd, LECS Ltd, Society of Operations Engineers (Allianz), L.I.T.S, National Lift Tower (Taylor Lifts Ltd), Lift & Escalator Industry Association

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